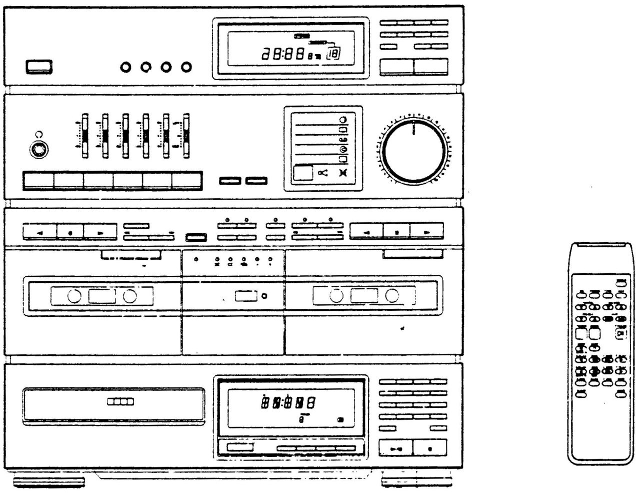
SAMSUNG
Electronics

SERVICE MANUAL
MODEL: SCM-6900

Hi-Fi STEREO MUSIC CENTER WITH COMPACT DISC PLAYER



SCM-6900

SPECIFICATION

RADIO

Frequency range FM : 87.5-108MHz
AM(MW) : 522-1611KHz
LW : 146-290KHz

Intermediate Frequency FM : 10.7MHz
AM(MW)/LW : 450KHz

Audio Fidelity FM : 60-10,000Hz
AM(MW) : 80-1,600Hz

TAPE

Track system : 4 Track 2 Channel
Recording system : AC BIAS
Erasing system : AC ERASE
Frequency response : Normal
CrO$_2$/METAL
Tape speed : 4.75cm/sec (Normal speed)
9.5cm/sec (High speed)
Tape loading system : FRONT LOADING
Deck type : FULL LOGIC

COMPACT DISC

Number of channel : 2 Channel
D/A conversion : 16 bit linear
Error correction decoding system : CIRC with double Compensation
Over sampled Frequency : 88.2KHz/CH
Dynamic range : 96dB
Audio output level : 1 Vrms

GENERAL

Frequency response : 20-20,000Hz
Output power (T.H.D 0.1%) : 30 W/CH
EQ control (5 bands) : ±10dB
Power source : See label rating
Power consumption : 160W
Dimension : 350(W) X 353(H) X 282(D) m/m
Weight : 8.6Kg

Design and specifications are subject to change without notice

CONTENTS

- SAFETY PRECAUTION 2
- SERVICING NOTE 3
- LOCATION AND FUNCTION 3
- REMOTE CONTROLLER 6
- ABBREVIATION 7
- DISASSEMBLY INSTRUCTION 8
- BASIC CIRCUIT OPERATION
  1. MICOM PIN DESCRIPTION 9
  2. CD BASIC CIRCUIT OPERATION 13
- TROUBLE SHOOTING 16
- ALIGNMENT LOCATION AND ADJUSTMENT PROCEDURE
  1. TUNER SECTION 22
  2. TAPE SECTION 26
  3. CD SECTION 29
- BLOCK DIAGRAM 34
- SCHEMATIC DIAGRAM 36
- IC AND TR VOLTAGE CHART 39
- PCB PATTERN AND MARKING 43
- WIRING DIAGRAM 47
- IC AND TR INTERNAL DIAGRAM 48
- EXPLODED VIEW 55
- DECK EXPLODED VIEW 56
- CD MECHANISM EXPLODED VIEW 58
- PARTS LIST 59

■ SAFETY PRECAUTION

1. CLASS1 LASER PRODUCT

This compact disc player is classified as a CLASS 1 laser product.

2. LASER WARNING LABEL

The label shown below may be affixed or not according to country.

(UL)

This Product Compiles with DHHS Rules 21CFR, Sub chapter J.At date of Manufacture.

(CSA)

CERTIFIED ONLY TO CANADIAN ELECTRICAL CODE.

CERTIFIE EN VERTU DU CODE CANADIAN DE LELETRICITE SEULEMENT

(EU)

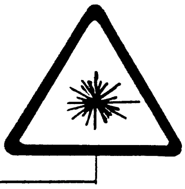
CLASS 1
LASER PRODUCT

Location : Enclosure back.

(SCAN)

ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFERVDERE ER VDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

(EU)



UL	:	Manufactured for U.S.A. Market.
CSA	:	Manufactured for Canadian Market.
EU	:	Manufactured for European Market
SCAN	:	Manufactured for Scandinavian Market.

Location : on the disc clamper or inner side of CD door or nearby CD chassis.

3. LASER BEAM WARNING

ADVARSEL — USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING — OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRALEN ÄR FARLIG.

VARITUS — LAITE SISÄLTÄA LASERDIODIN, JOKA LÄHETTÄÄ NÄKYMÄTÖNTA SILMILLE VAARALLISTA LASERSATEILYÄ.

CAUTION — INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

4. LASER DIODE SPECIFICATION (OPTICAL PICK-UP)

- Material: AlGaAs
- Waveiength: 760-800mm
- Emission duration: Continuous
- Laser Output: 0.2mW
  * This output is the value measured at distance 1.6mm from the objective lens surface on the optical pick-up block.
- Classification: CLASS 1

5. WARNING FOR SERVICING

WARNING: When servicing, do not approach the LASER exit with the eye too closely. In case it is necessary to confirm LASER beam emission, be sure to observe from a distance of more than 30cm from the surface of the objective lens on the optical pick-up block.

VARNING: När underhållningsarbeten utförs, närms dig försiktigt och se inte på laserutstrålningen pa för näre håll. Ifall det är nödvändigt att betrygga laserstrålens utströmning. Var säker att kontrollera detta från ett avstånd av mer än 30cm (11.81 inch.) från den objecktiva linsens y ta på den optiska utsåndningspunkten.

ADVARSEL: När repareringsarbejdet udfoeres, naerm dig, forsigtigt og se ikke på laserudstrålingen på for naer hånd. I tilfaeldet at det er noedvaendigt at bestemme laserstrålens udstråling. Vaer sikker på at kontrollere dette fra en afstand af mere end 30cm (11.81 inch.) fra den objektive linses overflade på den optiske udsendingspunkt.

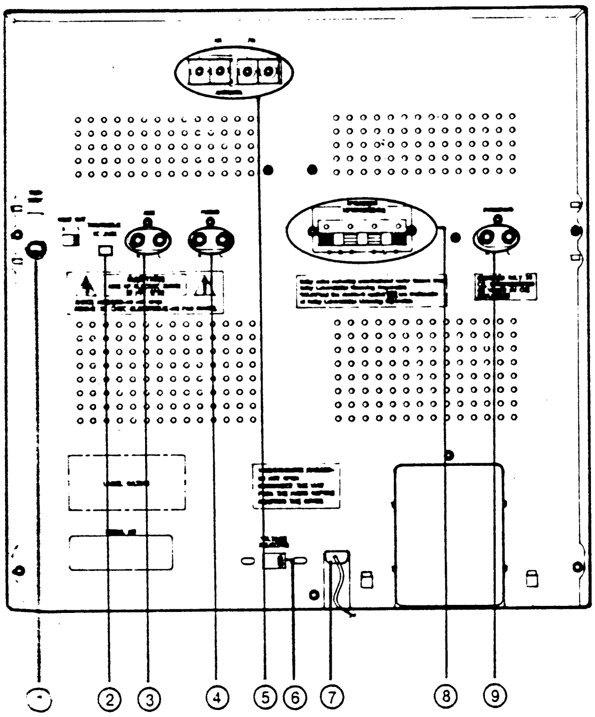
VAROITUS: Silmiä on varottava viemästä liian läbelle Laser-poistokanavaa huollon aikana. Jos on välttämätöntä varmistaa Laser-Säteen päästö, pysyttels sitä tarkasteltaessa vähintään 30cm etäisyydellä optisen lukon objektiivilinssin pinnasta.

■ SERVICING NOTE

1. Prevent shock hazard by unplugging power supply cord before opening cabinet.
2. Avoid repairing under direct sunshine and heat which may cause cabinet, transistor and IC to be transformed or misoperate.
3. Use a soft cotton swab moistened with warm water or neutral cleaner when parts of unit need to be cleaned.
4. Be sure to use identical replacement parts, especially for critical parts in the unit since many parts in the unit have special safety characteristics marked by ⚠ in the circuit diagram and parts list.
5. Avoid repairing the set near TV or any other magnetic forces.
6. Disconnect immediately the plug from wall socket during electric storm to reduce the risk of damage.
7. Be careful of electrostatic source when using control IC.
8. Be sure not to seperate the pick-up from the unit and not to touch the ALPC (Automatic Laser Power Control).
9. The laser diode in the optical pick-up may suffer electrostatic break down because of potential static electricity from clothing and your body.
   - Put on a wrist strap whose one end is grounded for elimination of static electricity in your body.
   - Be sure clothing doesn't touch the pick-up because all static electricity in clothing can't be drained away.

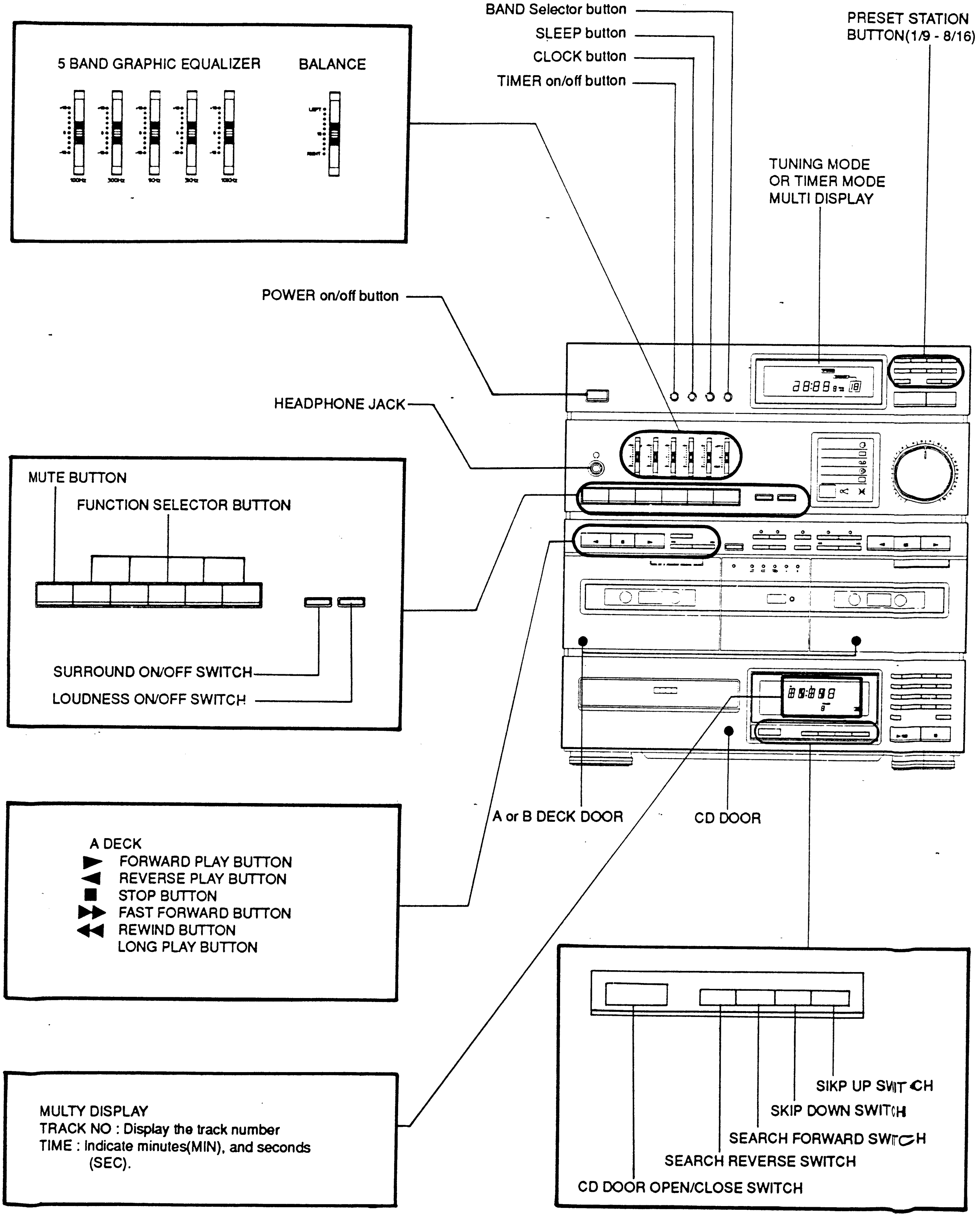
■ LOCATION AND FUNCTION

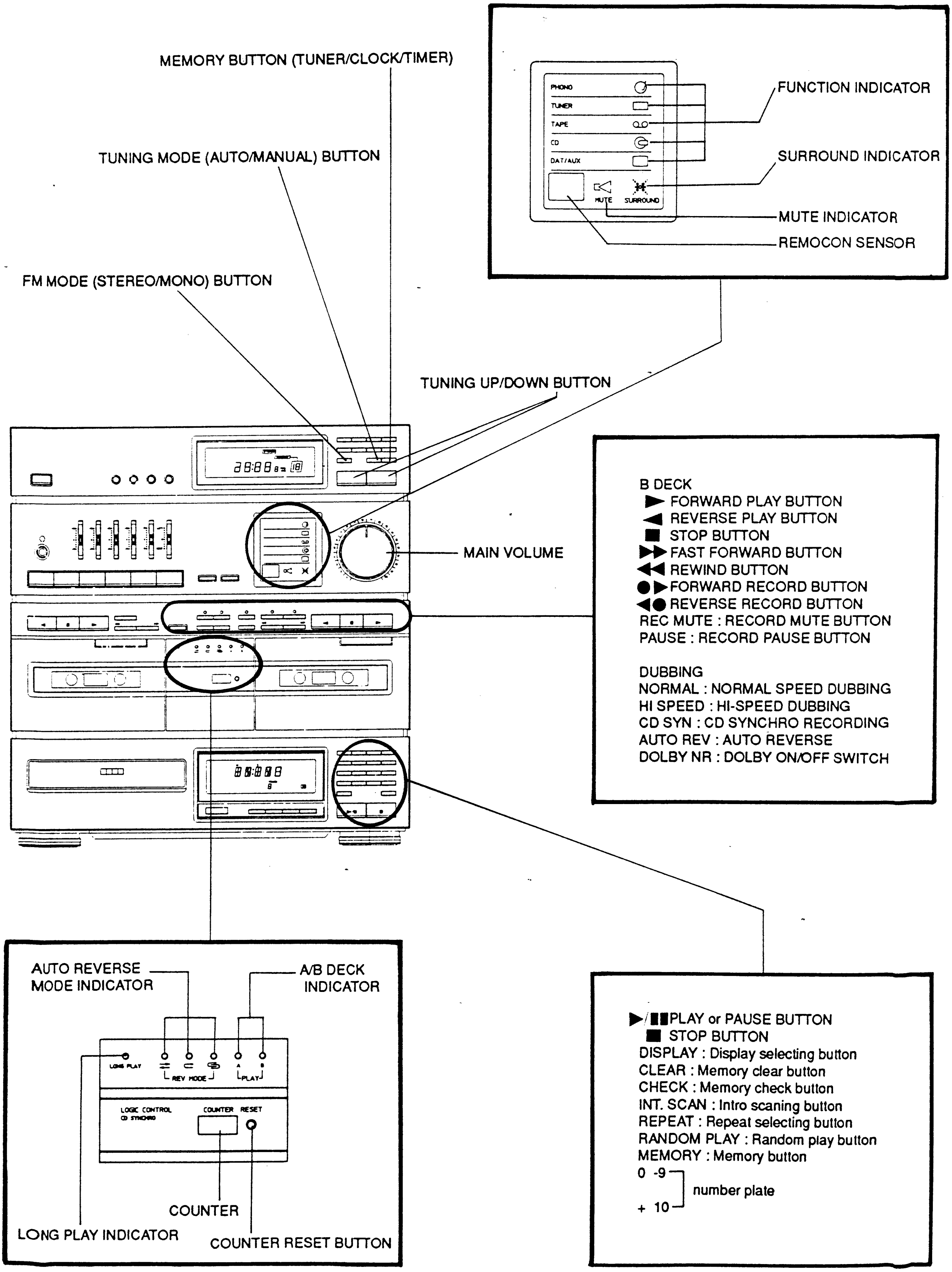
● REAR PANEL



1. GROUND TERMINAL
2. T/TABLE DC JACK
3. AUX INPUT JACK
4. PHONO INPUT JACK
5. ANTENNA TERMINAL
6. VOLTAGE SELECTOR (OPTION)
7. POWER CORD
8. SPEAKER TERMINAL
9. SURROUND SPEAKER TERMINAL

● FRONT PANEL


BAND Selector button
SLEEP button
CLOCK button
TIMER on/off button
PRESET STATION BUTTON(1/9 - 8/16)
5 BAND GRAPHIC EQUALIZER
BALANCE
TUNING MODE OR TIMER MODE MULTI DISPLAY
POWER on/off button
HEADPHONE JACK
MUTE BUTTON
FUNCTION SELECTOR BUTTON
SURROUND ON/OFF SWITCH
LOUDNESS ON/OFF SWITCH
A or B DECK DOOR
CD DOOR
A DECK
► FORWARD PLAY BUTTON
◄ REVERSE PLAY BUTTON
■ STOP BUTTON
►► FAST FORWARD BUTTON
◄◄ REWIND BUTTON
LONG PLAY BUTTON
SIKP UP SWITCH
SKIP DOWN SWITCH
SEARCH FORWARD SWITCH
SEARCH REVERSE SWITCH
CD DOOR OPEN/CLOSE SWITCH
MULTY DISPLAY
TRACK NO : Display the track number
TIME : Indicate minutes(MIN), and seconds (SEC).


MEMORY BUTTON (TUNER/CLOCK/TIMER)
TUNING MODE (AUTO/MANUAL) BUTTON
FM MODE (STEREO/MONO) BUTTON
TUNING UP/DOWN BUTTON
MAIN VOLUME
PHONO
TUNER
TAPE
CD
DAT/AUX
MUTE
SURROUND
FUNCTION INDICATOR
SURROUND INDICATOR
MUTE INDICATOR
REMOCON SENSOR
AUTO REVERSE MODE INDICATOR
A/B DECK INDICATOR
LONG PLAY
REV MODE
A
B
PLAY
LOGIC CONTROL
CD SYNCHRO
COUNTER
RESET
COUNTER
LONG PLAY INDICATOR
COUNTER RESET BUTTON

B DECK
▶ FORWARD PLAY BUTTON
◀ REVERSE PLAY BUTTON
■ STOP BUTTON
▶▶ FAST FORWARD BUTTON
◀◀ REWIND BUTTON
●▶ FORWARD RECORD BUTTON
◀● REVERSE RECORD BUTTON
REC MUTE : RECORD MUTE BUTTON
PAUSE : RECORD PAUSE BUTTON

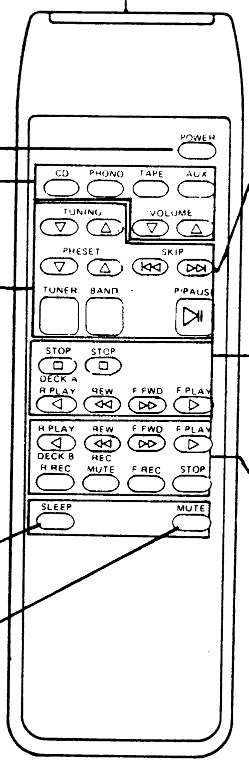
DUBBING
NORMAL : NORMAL SPEED DUBBING
HI SPEED : HI-SPEED DUBBING
CD SYN : CD SYNCHRO RECORDING
AUTO REV : AUTO REVERSE
DOLBY NR : DOLBY ON/OFF SWITCH

▶/▮▮PLAY or PAUSE BUTTON
■ STOP BUTTON
DISPLAY : Display selecting button
CLEAR : Memory clear button
CHECK : Memory check button
INT. SCAN : Intro scaning button
REPEAT : Repeat selecting button
RANDOM PLAY : Random play button
MEMORY : Memory button
0 -9 ⎤
⎬ number plate
+ 10 ⎦

■ REMOTE CONTROLLER

INFRARED BEAM TRANSMIT WINDOW

POWER ON/OFF BUTTON


POWER
CD
PHONO
TAPE
AUX
TUNING
VOLUME
PRESET
SKIP
TUNER
BAND
P/PAUSE
STOP
STOP
DECK A
R PLAY
REW
F FWD
F PLAY
R PLAY
REW
F FWD
F PLAY
DECK B
R REC
REC MUTE
F REC
STOP
SLEEP
MUTE

CD SECTION

- PLAY/PAUSE (►II) BUTTON
- STOP (■) BUTTON
- SKIP DOWN BUTTON
  (SKIP, |◄◄)
- SKIP UP BUTTON
  (SKIP, ►►|)

AMP SECTION

- PHONO BUTTON
- CD BUTTON
- AUX BUTTON
- TAPE BUTTON
- VOLUME DOWN (▼)/UP (▲) BUTTON

A DECK SECTION

- STOP (■) BUTTON
- REWIND (◄◄) BUTTON
- FAST FORWARD (►►) BUTTON
- PLAY (◄ & ►) BUTTON,
  F.PLAY : FORWARD PLAY
  R.PLAY : REVERSE PLAY

TUNER SECTION

- TUNING UP (▲)/DOWN (▼) BUTTON
- BAND SELECT BUTTON
- PRESET UP (▲)/DOWN (▼) BUTTON
- TUNER BUTTON

B DECK SECTION

- STOP (■) BUTTON
- REWIND (◄◄) BUTTON
- FAST FORWARD (►►) BUTTON
- PLAY (◄ & ►) BUTTON.
  F. PLAY : FORWARD PLAY
  R. PLAY : REVERSE PLAY
- RECORD (◄● & ●►) BUTTON
  F. REC : FORWARD RECORD
  R. REC : REVERSE RECORD
- RECORD MUTE BUTTON

SLEEP BUTTON

MUTE BUTTON

ABBREVIATION

AC : Alternating Current
Addr : Address
AGC : Automatic Gain Control
ALC : Automatic Level Control
AM : Amplitude Modulation
AMP : AMPlifier
ANT : ANTenna
ASSY : ASSemblY

BAL : BALance
BLK : BLack
BLU : BLUe
BPF : Band Pass Filter
BRKT : BRacKeT

CF : Ceramic Filter
ch : channel
cm : centimeter
COM : COMmon
CON MIC : CONdenser MICrophone

D : Depth
dB : deciBel
DC: : Direct Current
DEC : DECoder
DET : DETector
DEV : DEViation
DTS : Digital Tuning System
EA : EAch
E-HEAD : Erase HEAD

FF : Fast Forward
F/F : Flip Flop
Fig : Figure
FM : Frequency Modulation

GND : GrouND
GRN : GReeN
GRY : GRaY
GRY : GRaY

H : Height, High
Hz : Hertz

IC : Integrated Circuit
IF : Intermediate Frequency
IFT : Intermediate Frequency Transformer
I/O : Input/Output

KHz : KiloHertz
Kg : Kilogram

L : Left, Low
LCD : Liquid Crystal Display
LED : Light Emitting Diode
LPF : Low Pass Filter
LW : Long Wave

Max : Maximum
MHz : MegaHertz
min : minimum
MIX : MIXer
mm : millimeter
MOD : MODulation
MPX : MultiPleX
MW : Medium Wave

NF : Negative Feedback

ORG : ORanGe
OSC : OSCillator

PB : Play Back
PCB : Printed Circuit Board
PLL : Phase Lock Loop
P/T : Power Transformer

R : Right
RAM : Random Access Memory
REC : RECord
REG : REGulator
REW : REWind
RF : Radio Frequency
ROM : Read Only Memory
R/P : Record/Play

sec : second
SSG : Standard Signal Generator
ST : STereo
ST/EJT : STop/EJecT
SW : SWitch, Short Wave

TP : Test Point
TR : TRansistor
TRANS : TRANSformer

V : Volt
VIO : VIOlet
VCO : Voltage Controlled Oscillator
VOL : VOLume
Vpp : Voltage peak to peak
VR : Volume
Vref : REFerence Voltage
V/SEL : Voltage SELector
VTVM : Vacuum Tube Volt Meter
VVC : Voltage Variable Capacitance

W : Watt, Weight
WHT : WHiTe

X : crystal

YEL : YELlow

■ DISASSEMBLY INSTRUCTION

1. **Before disassembling the unit.**
   Remove AC cord.
2. **Disassembly procedure.**
   1. **Top cabinet (see figure 1)**
      Remove 10 screws from the cabinet top and lift up in the direction of 1 .
   2. **Rear panel (see figure 1)**
      Remove 14 screws at the back of the panel and pull towards the back of the unit.

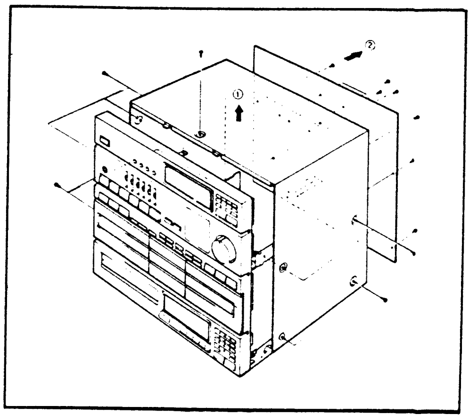


Fig. 1.

   3. **Cassette deck (see figure 2)**
      1) Remove 8 screws from left and right deck by using + driver in a counterclock wise direction.
      2) Pull cassette deck in a direction of the arrow.

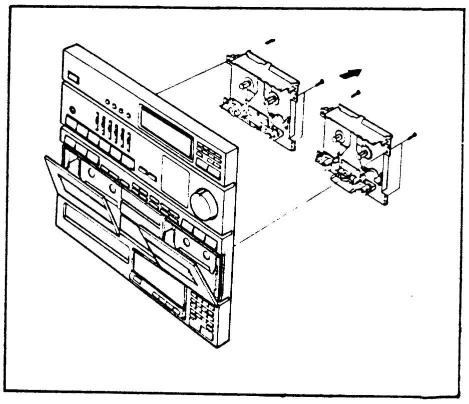


Fig. 2.

   4. **CD MECHANISM (see figure 3)**
      1) Remove 3 serews holding between the main chassis and CD mechanism.
      2) Pull up in a direction of the arrow.

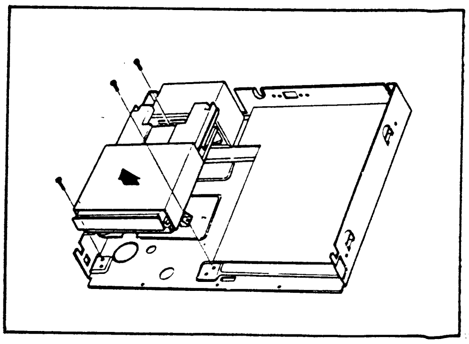


Fig. 3.

■ BASIC CIRCUIT OPERATION

This section briefly explains the operation of the micom which will help you repair the unit.

1. MICOM PIN DESCRIPTION

1. LC7230-8302 (DTS CONTROLLER)

PIN NO.	PIN NAME	I/O	FUNCTION	ACTIVE
1	XIN	I	Crystal oscillating port. (4.5MHz)	–
80	XOUT	O		–
2, 79	TEST 1, 2	I	Connect to Vss	–
3	REMOCON	I	Remocon input port. If it is open, it may cause maloperation.	L
4	$\overline{\text{STEREO}}$	I	If it becomes low, STEREO of LCD will be ON.	L
7	$\overline{\text{CE2}}$	O	CD and DECK control port.	L
8-11	$\overline{\text{FM}}$, $\overline{\text{MW}}$, $\overline{\text{LW}}$, $\overline{\text{SW}}$	O	All are used for converting the BAND power source.	L
12	VR UP	O	If volume up signals are input, it outputs High	H
13	VR DOWN	O	If volume down signals are input, it outputs High.	H
14	MUTE	O	It outputs L when power is ON. It becomes H if MUTE key is pressed and pressed once more, it becomes L.	H
15-17	CE, DO, CLK	O	LC7821 control port. (Serial data line)	H, H, ↑
18	IF CNT	O	If signal output port. If L is input to SD port during auto search, it becomes high.	H
19	MO/ST	O	Convert to H at MONO and convert to L at STEREO (If MONO key is pressed, it goes opposite).	H
20	POWER OUT	O	POWER control port.	H
21	$\overline{\text{A MUTE}}$		AUDIO MUTE port.	L
22	STB	O	DATA STRBO port of 74HC375	H
23-26	T7-T4	O	Transmit data to 74HC375. (TAPE, TUNER, AUX, PHONO)	H
27-30	T3-T0	O	Key scan output signal.	H
32-35	K3-K0	I	Key input signal.	H
5-6	K5, K4	I	Diode matrix input signal.	H
63-36	S1-S28	O	LCD Segment drive port.	-
65, 64	COM1, 2	O	LCD Common drive port.	-
67	$\overline{\text{HOLD}}$	I	L-Back up mode	L
69	$\overline{\text{SD}}$	I	Broadcast receiving port	L
70	HCTR	I	FM IF Signal input port.	-
71	LCTR	I	AM IF Signal input port.	-
72	SNS	I	Transmit data to LC7821, 74HC375	H
74, 75	FM IN, AM IN	I	Input local OSC signal	-
76, 77	EQ1, 2	O	Phase comparison output signal	
66	INT	I	Remocon input port.	↓
31, 73	VDD			
76	Vss			
68	$\overline{\text{RES}}$			

2. LC66508-4296 (DECK CONTROLLER)

PIN NO.	PIN NAME	I/O	FUNCTION	ACTIVE	
				H	L
1	$\overline{\text{REC}}$	O	REC, DUBBING : L		REC DUBBING
2	DUB	O	DUBBING : H	O	
3	$\overline{\text{H/SP}}$	O	HI-SPEED DUBBING : L	NOR SPEED	HI SPEED
4	A PLAY	O	A DECK PLAY : H	O	
5	CLK	I/O	REMOTE CONTROL OPERATION PORT		
6	DATA	I/O	REMOTE CONTROL OPERATION PORT		
7	CE	I/O	REMOTE CONTROL OPERATION PORT		
8	POWER OFF	I	POWER ON : H, POWER OFF : L	POWER ON	POWER OFF
9-11	T.SENS. FF/REW PLAY	I	A DECK OPERATION INPUT PORT		A DECK OPERATION
12-16	F, REC/R.REC T.SENS FF/REW. PLAY	I	B DECK OPERATION INPUT PORT		B DECK OPERATION
17-18	TSP, TSR (OPTION)	I	TIMER SW PLAY : B DECK PLAY TIMER SW REC : B DECK REC	PLAY REC	
19	REC MUTE	O	REC-MUTE SIGNAL OUTPUT	REC MUTE ON	REC MUTE OFF
20	LINE MUTE	O	LINE-MUTE SIGNAL OUTPUT	LINE MUTE ON	LINE MUTE OFF
21	REPEAT	O	1 MUSIC REPEAT INDICATOR OPERATION OUTPUT		
22	REC MUTE	O	REC MUTE INDICATOR OPERATION OUTPUT		
23-24	NOR/SPEED (OPTION) HI/SPEED (OPTION)	O O	NOR/SPEED INDICATOR OPERATION OUTPUT HI/SPEED INDICATOR OPERATION OUTPUT		LED OPTION
25	P1Ao	O	A DECK PLAYBACK PLUNGER OPERATION PORT	PLAY REC	
26	P2Ao	O	A DECK FF/REW PLUNGER OPERATION PORT	FF/REW	
27	P1Bo	O	B DECK PLAYBACK PLUNGER OPERATION PORT	PLAY REC	
28	P2Bo	O	B DECK FF/REW PLUNGER OPERATION PORT	FF/REW	
29	$\overline{\text{INH}}$	I/O	LCD CONTROL PORT		
30-31	TEST, VSS	O	GND PORT		
32-33	OSC1, OSC2		4MHz OSC PORT		
34	$\overline{\text{RES}}$		RESET		
35-37	CE, CLK, DATA		LCD CONTROL		
38-45	REW, FF, R PLAY, F PLAY (B DECK) REW, FF, R PLAY, F PLAY (A DECK)	O	B DECK OPERATION DISPLAY : OUTPUT PORT (OPTION) A DECK OPERATION DISPLAY : OUTPUT PORT (OPTION)		
46-54, 56	KEY MATRIX	I	KEY MATRIX INPUT		
55	AMPS IN	I	AMPS BLANK SIGNAL INPUT	H	
57	QUICK REVERSE B	I	B DECK LEADER SIGNAL INPUT		
58	QUICK REVERSE A	I	A DECK LEADER SIGNAL INPUT		
59	AUTO STOP B	I	B DECK AUTOSTOP SIGNAL INPUT		
60	AUTO STOP A	I	A DECK AUTOSTOP SIGNAL INPUT		
61	MAO	O	A DECK MOTOR OPERATION SIGNAL OUTPUT	MOTOR OPERATION	
62	MBO	O	B DECK MOTOR OPERATION SIGNAL OUTPUT	MOTOR OPERATION	
63	AMPS OUT	O	AMPS OPERATION SIGNAL OUTPUT		
64	VDD		VDD		

3. CXD 1135Q

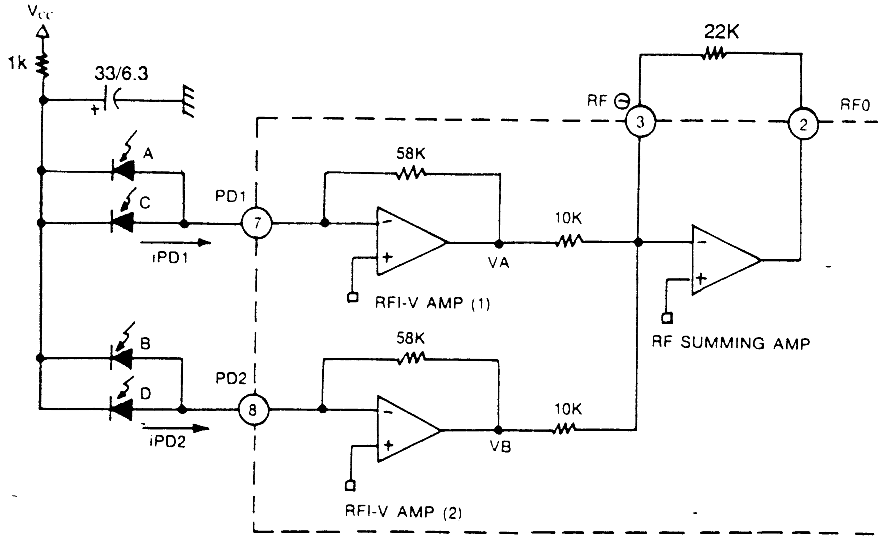
PIN NO.	PIN NAME	I/O	FUNCTION	ACTIVE
1	FSW	O	Pin 1 output is switched constant when the output filter of the spindle motor is energized.	
2	MON	O	ON/OFF control for spindle motor.	
3	MDP	O	Spindle motor drive. Provides rough control during CLV-S mode and phase control during CLV-P mode.	
4	MDS	O	Spindle motor drive. Controls speed during CLV-P mode.	
5	EFM	I	EFM signal from RF amplifier.	
6	ASY	O	Controls slice level of the EFM signal.	
7	LOCK	O	The output of pin 7 reflects the status of the GFS signal which is sampled at WFCK/16. When the GFS signal is "H", the output of pin 7 is also "H", but when the signal has remained "L" for at least 8 samples, the output of pin 7 is "L".	
8	VCOO	O	When VCO locks to EFM signal, the frequency becomes 8.6432MHz.	
9	VCOI	I	VCO input.	
10	TEST	I	(0V)	
11	PDO	O	The output of Pin 11 provides phase comparison of EFM signal and VCO/2.	
12	Vss	–	GND (0V)	
13	CLK	I	Pin 13 provides serial transmission clock from the CPU. Data is latched on the leading edge of the clock.	
14	XLT	I	Pin 14 provides latch input from the CPU. 8-bit shift register data (serial data received from the CPU) is latched in each of the registers.	
15	DATA	I	Serial data from the CPU.	
16	XRST	I	System reset ("L")	
17	CNIN	I	Tracking pulse input.	
18	SENS	O	Output reflecting internal condition as designated by address.	
19	MUTG	I	Muting input. MUTG is "L" when ATTM of internal register A is "L" (normal condition). MUTG is "H" when muting condition is set.	
20	CRCF	O	Output the results CRC check of subcode Q.	
21	EXCK	I	Clock input for subcode serial output.	
22	SBSO	O	Serial output of subcode.	
23	SUBQ	O	Output of subcode Q.	
24	SCOR	O	Output of subcode sync S0 + S1.	
25	SQCK	I/O	Clock for reading subcode Q.	
26	SQEX	I	Input for selecting SQCK.	
27	DOTX	O	Digital output ($\overline{\text{WFCK}}$ is output when DO is off or for the CXD1130Q)	
28	GFS	O	Indicates the frame sync lock status.	
29	DB08	I/O	Data pin for external RAM. DATA8 (MSB)	
30	DB07	I/O	Data pin for external RAM. DATA7	
31	DB06	I/O	Data pin for external RAM. DATA6	
32	DB05	I/O	Data pin for external RAM. DATA5	
33	VDD	–	Power supply (+5V)	
34	DB04	I/O	Data pin for external RAM. DATA4	
35	DB03	I/O	Data pin for external RAM. DATA3	
36	DB02	I/O	Data pin for external RAM. DATA2	
37	DB01	I/O	Data pin for external RAM. DATA1 (LSB)	
38	RA01	O	Output address of external RAM. ADDR01 (LSB)	
39	RA02	O	Output address of external RAM. ADDR02	
40	RA03	O	Output address of external RAM. ADDR03	

PIN NO.	PIN NAME	I/O	FUNCTION	ACTIVE
41	RA04	O	Output address of external RAM. ADDR04	
42	RA05	O	Output address of external RAM. ADDR05	
43	RA06	O	Output address of external RAM. ADDR06	
44	RA07	O	Output address of external RAM. ADDR07	
45	RA08	O	Output address of external RAM. ADDR08	
46	RA09	O	Output address of external RAM. ADDR09	
47	RA10	O	Output address of external RAM. ADDR10	
48	RA11	O	Output address of external RAM. ADDR11 (MSB)	
49	RAWE	O	Writes enable output signal to external RAM. (Active when "L".)	
50	RACS	O	Chip select output signal to external RAM. (Active when "L".)	
51	C4M	O	Divider output for crystal. f = 4.2336MHz	
52	Vss	–	GND (0V)	
53	XTAI	I	Input to crystal oscillator circuit. Depending on the mode the frequency is either f = 8.4672 or 16.9344MHz.	
54	XTAO	O	Output from crystal oscillator circuit. Depending on the mode the frequency is either f = 8.4672 or 16.9344MHz.	
55	MD1	I	Mode selection input 1.	
56	MD2	I	Mode selection input 2.	
57	MD3	I	Mode selection input 3.	
58	SLOB	I	Code switch input for audio data output. 2's complement output when "L", offset binary output when "H".	
59	PSSL	I	Code switch input for audio data ouput. Serial output when "L", parallel output when "H".	
60	APTR	O	Control output for aperture compensation. "H" during R-ch.	
61	APTL	O	Control output for aperture compensation. "H" during L-ch.	
62	DA01	O	DA01 (LSB of parallel audio data) is output when PSSL = "H". C1F1 is output when PSSL = "L".	
63	DA02	O	DA02 is output when PSSL = "H". C1F2 is output when PSSL = "L".	
64	DA03	O	DA03 is output when PSSL = "H". C2F1 is output when PSSL = "L".	
65	DA04	O	DA04 is output when PSSL = "H". C2F2 is output when PSSL = "L".	
66	DA05	O	DA05 is output when PSSL = "H". C2FL is output when PSSL = "L".	
67	DA06	O	DA06 is output when PSSL = "H". C2PO is output when PSSL = "L".	
68	DA07	O	DA07 is output when PSSL = "H". RFCK is output when PSSL = "L".	
69	DA08	O	DA08 is output when PSSL = "H". WFCK is output when PSSL = "L".	
70	DA09	O	DA09 is output when PSSL = "H". PLCK is output when PSSL = "L".	
71	DA10	O	DA10 is output when PSSL = "H". UGFS is output when PSSL = "L".	
72	DA11	O	DA11 is output when PSSL = "H". GTOP is output when PSSL = "L".	
73	VDD	–	Power supply (+5V)	
74	DA12	O	DA12 is output when PSSL = "H". RAOV is output when PSSL = "L".	
75	DA13	O	DA13 is output when PSSL = "H". C4LR is output when PSSL = "L".	
76	DA14	O	DA14 is output when PSSL = "H". C210 is output when PSSL = "L".	
77	DA15	O	DA15 is output when PSSL = "H". C210 is output when PSSL = "L".	
78	DA16	O	DA16 (MSB of parallel audio data) is output when PSSL = "H". DATA is output when PSSL = "L".	
79	WDCK	O	Strobe signal output. Output is 176.4KHz when DF is on. Output is 88.2KHz when DF is off or when the chip being used is CXD1125Q.	
80	LRCK	O	Strobe signal output. Output is 88.2KHz when DF is on. Output is 44.1KHz when DF is off or when the chip being used is CXD1125Q.	

2. CD BASIC CIRCUIT OPERATION

1. RF AMPLIFIER (CXA1081M) : WIC1

RF I-V amplifiers (1) and (2) are converted to voltage from the signal current of pin photodiodes connected to PD1 and PD2 through the 58 kΩ equivalent resistance. Furthermore, it is added in the RF summing amplifier and (A + B + C + D) is output at RFO. At this pin (RFO), the eye pattern can be checked.


Vcc
1k
33/6.3
+
A
C
PD1
7
iPD1
B
D
PD2
8
iPD2
58K
58K
10K
10K
VA
VB
RFI-V AMP (1)
RFI-V AMP (2)
22K
RF ⊖
3
2
RFO
RF SUMMING AMP

The RF amplifier output voltage (low-frequency) is

$V_{RFO} = 2.2 \times (V_A + V_B)$

$= 127.6\ k \times (iPD1 + iPD2)$. (at RFO)

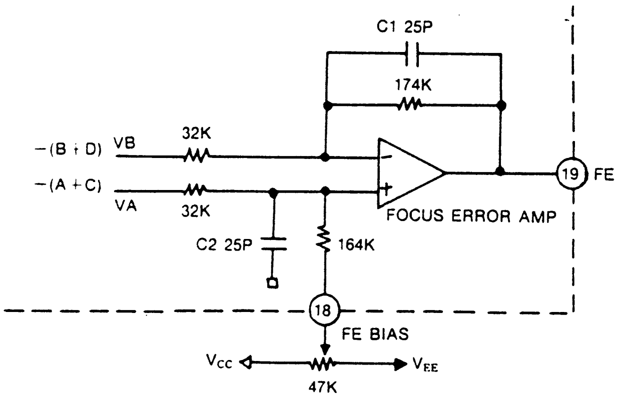
2. FOCUS ERROR AMPLIFIER (CXA1081M) : WIC1

The Focus Error Amplifier is the difference between RF I-V amplifier (1) output (A + C) and RF I-V amplifier (2) output (B + D). The output becomes (A + C – B – D).

The FE amplifier output voltage (low-frequency) is

$V_{FE} = 5.4 \times (V_A - V_B)$

$= (iPD2 - iPD1) \times 315.4\ k$


C1 25P
174K
–(B + D) VB
32K
–(A + C) VA
32K
C2 25P
164K
FOCUS ERROR AMP
19
FE
18
FE BIAS
Vcc
47K
VEE

3. TRACKING ERROR AMPLIFIER (CXA1081M): WIC1

E I-V amplifier and F I-V amplifier are converted to voltage from the signal current of pin photodiode connected: E and F. The E and F I-V amplifiers output voltage is,

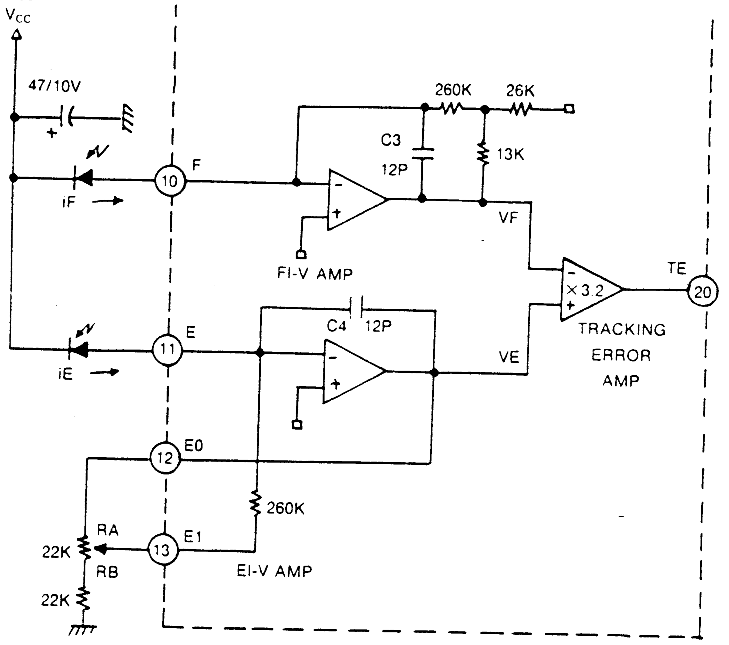
$V_F = i_F \times 403\ k\Omega$, and

$V_E = i_E \times 260\ k\Omega \times R_A/(R_B + 22k) + (R_A + 260k)$.

The tracking error amplifier is the difference between the E I-V amplifier output and the F I-V amplifier outut, this output is (E-F).

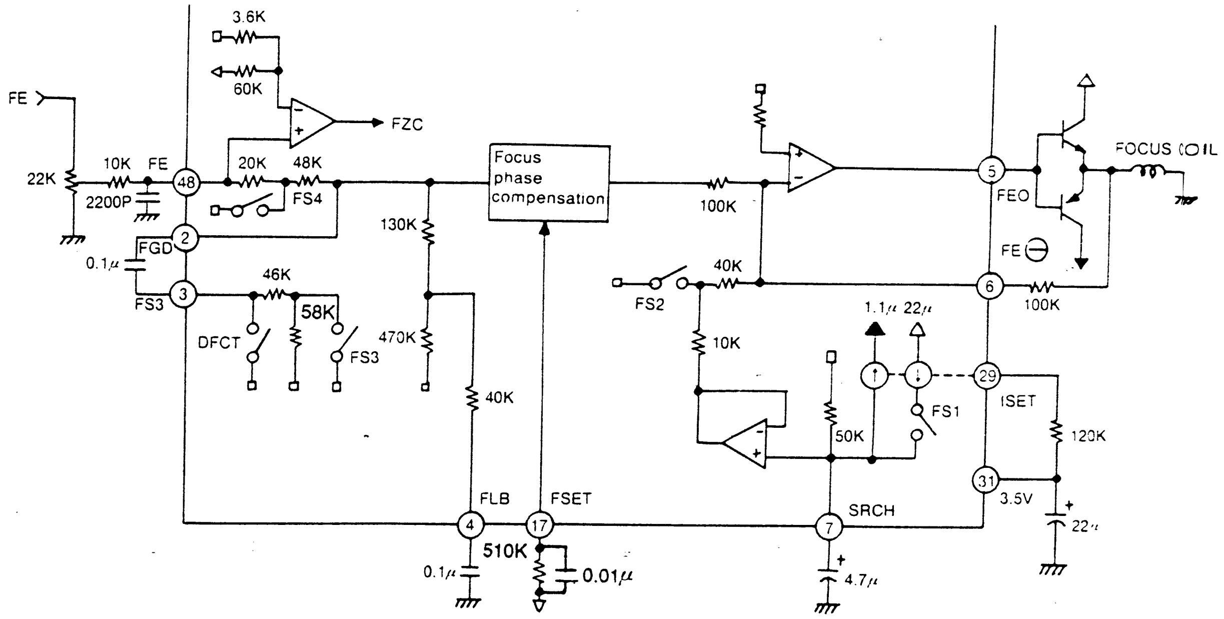
$V_{TE} = (V_E - V_F) \times 3.2$

$= (i_E - i_F) \times 1290\ k\Omega$



Vcc
47/10V
+
iF
F
10
260K
26K
C3
12P
13K
VF
FI-V AMP
TE
20
×3.2
TRACKING
ERROR
AMP
C4
12P
E
11
iE
VE
E0
12
260K
RA
22K
E1
13
RB
22K
EI-V AMP

4. FOCUS SERVO SYSTEM (CXA1082AQ) : WIC2



3.6K
60K
FZC
FE
22K
10K
FE
48
2200P
20K
48K
FS4
2
FGD
0.1μ
FS3
3
46K
58K
DFCT
470K
FS3
130K
40K
Focus
phase
compensation
100K
40K
FS2
10K
1.1μ
22μ
50K
FS1
29
ISET
120K
31
3.5V
22μ
5
FEO
FE⊖
6
100K
FOCUS COIL
FLB
FSET
4
17
510K
0.01μ
0.1μ
SRCH
7
4.7μ

When FS3 is switched on, the high frequency gain can be reduced by forming a low frequency time constant through a capacitor connected across pins 2 and 3 and the internal resistor.

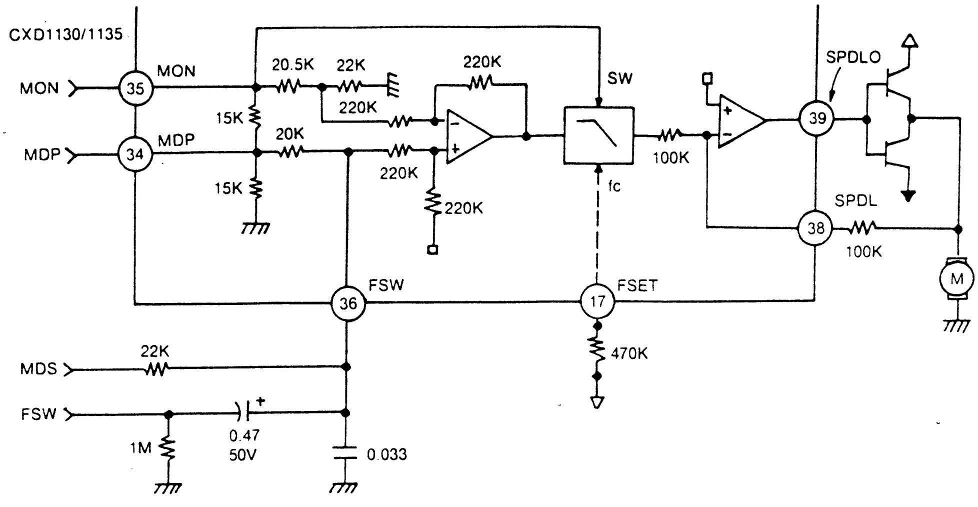
The capacitor across the pin 4 and GND has a time constant to raise the low frequency usually playback condition.

The peak frequency of the focus phase compensation is inversely proportional to the resistor connected to pin 17 (about 1.2 kHz when the resistor is 510 kΩ).

The focus search peak becomes about + 1.1 Vp-p with the above constant. The peak is inversely proportional to the resistor connected across the pins 29 and 31. However, when this resistor is varied, the peaks of track jump and sled kick also vary.

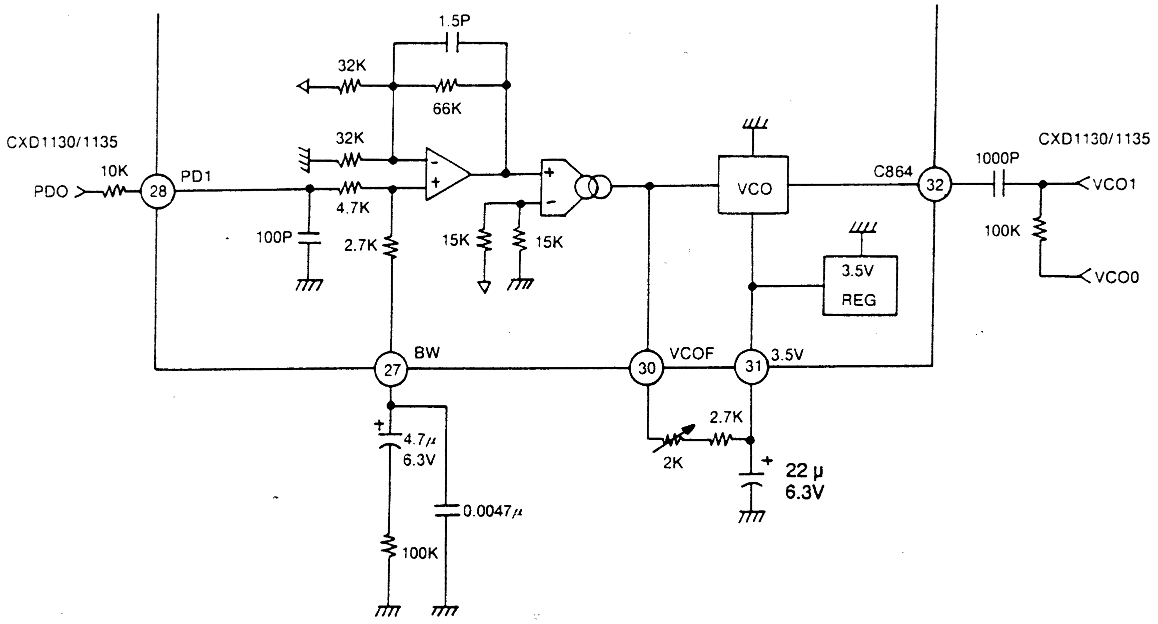
The FZC comparator invert input is set to 2% of the difference between the reference voltage Vcc and VC (pin 1) : 2% x (Vcc—VC).

5. SPINDLE SERVO AND LPF (CXA1082AQ) : WIC2


CXD1130/1135
MON
35
MON
MDP
34
MDP
20.5K
22K
220K
15K
20K
220K
220K
220K
15K
SW
100K
fc
SPDLO
39
SPDL
38
100K
M
FSW
36
FSET
17
470K
MDS
22K
FSW
1M
0.47
50V
0.033

The 200Hz LPF is formed with 0.033µF and 20 kΩ connected to pin 36 and the secondary LPF is formed with the built-in LPF (fc up to 200Hz with 510 kΩ for pin 17), and the carrier component of the CLV servo error signals MDS and MDP is eliminated.
In the CLV-S mode, FSW becomes L and the pin 36 LPF fc lowers, strengthening the filter further.
With the pin 17 resistor connected to Vcc, fc does not vary with power supply voltage fluctuations.
Note) Use the phase compensation instead of MDS when the CX23035 is used.

6. VCO LOOP FILTER AND 8.64 MHz VCO (CXA1082AQ) : WIC2

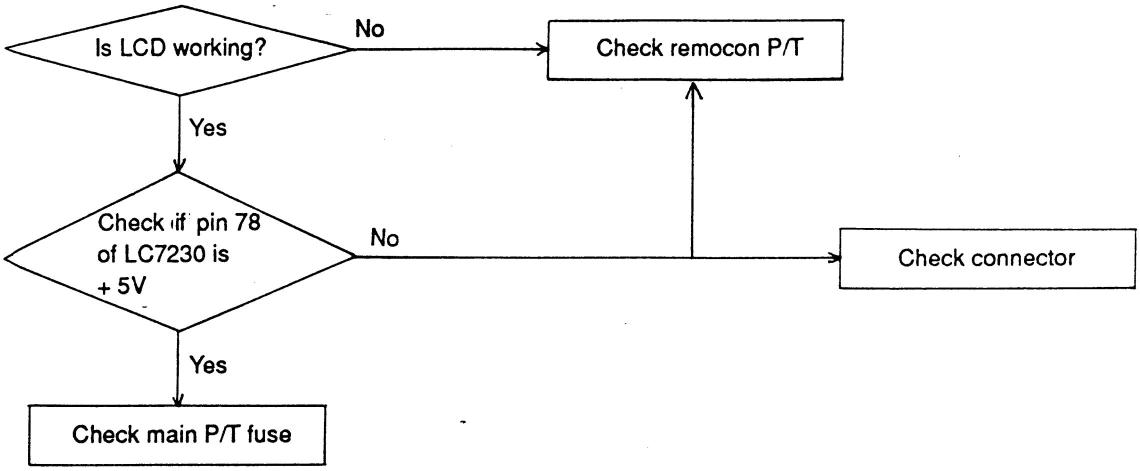

1.5P
32K
66K
CXD1130/1135
32K
10K
PDO
28
PD1
4.7K
100P
2.7K
15K
15K
VCO
C864
32
CXD1130/1135
1000P
VCO1
100K
VCO0
3.5V
REG
BW
27
VCOF
30
31
3.5V
2.7K
2K
22 µ
6.3V
4.7µ
6.3V
0.0047µ
100K

The phase compensation output PDO input from pin 28 has its PWM carrier component removed in the loop filter. Then, the V-I conversion is made and the free-running frequency setting current from pin 30 is added to control the VCO frequency. The VCO self-running frequency is almost inversely proportional to the resistor across pins 30 and 31. This resistor is set so that the PLL capture range center matches the 4.3218MHz at pin 70 of the CXD1135 /1130.

■ TROUBLE SHOOTING

1. MAIN AND TUNER SECTION

- **POWER SOURCE NOT SENSIBLE**

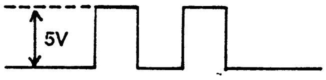

Is LCD working?
No
Check remocon P/T
Yes
Check if pin 78 of LC7230 is +5V
No
Check connector
Yes
Check main P/T fuse

- **LCD NOT OPERATING**
  1. Check OSC frequency of LC7230 (4.5MHz).
  2. Check if pattern is open or soldering is misapplied.

- **FUNCTION KEY INOPERATIVE**
  1. Check contact of CNFT connector (16 PINS) connecting TUNER PCB and FRONT PCB.
  2. Check soldering of JUMPER WIRE.

- **BAND CONVERSION INOPERATIVE**
  1. Check if FQ5, FQ6 operate (FQ5 ; FM, FQ6 ; FM).

- **FUNCTION CONVERSION INOPERATIVE**
  1. If FUNCTION LED doesn't operate;
     Check contact of CNFT.
  2. If FUNCTION LED is working but signal is not converted;
     Check signal output of pin 15, 16, 17 of LC7230.

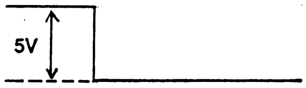


LC7821 CE, DO, CLK

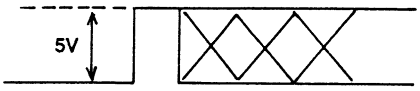
LC7821 won't operate until ↑ reaches 5V.

  3. If CD Synchro doesn't work and REMOTE CONTROL is inoperative to DECK and CDP.
     Check signal output of PIN 7, 16, 17 in LC7230

PIN 7 (Low Active)



PIN 16, 17 (High Active)

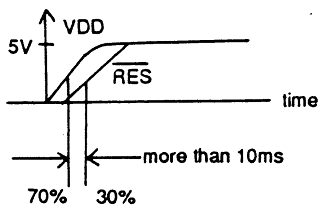


2. DECK SECTION

<table>
<tr><th>BLOCK</th><th>MAIN FUNCTION</th><th>CHECK POINT</th></tr>
<tr><td>TAPE EQ AMP
JIC1 (LA3246)</td><td>Convert signal of P/B and R/P deck.</td><td>● CHECK PIN NO 9
P/B DECK ; L R/P DECK : H
● CHECK JQ4 when malfunctioning
P/B DECK ; TURN ON
R/P DECK ; TURN OFF</td></tr>
<tr><td>AMPS
JIC50 (LA2010)</td><td>Operate AMPS (Automatic Music Program search)</td><td>● PIN NO 6
BLANK PART ; L
MUSIC PART ; H
● When inoperative, check if signal is input to PIN NO 1.</td></tr>
<tr><td>DOLBY NR AMP
DIC1 (KA2271)</td><td>Convert P/B and source signal

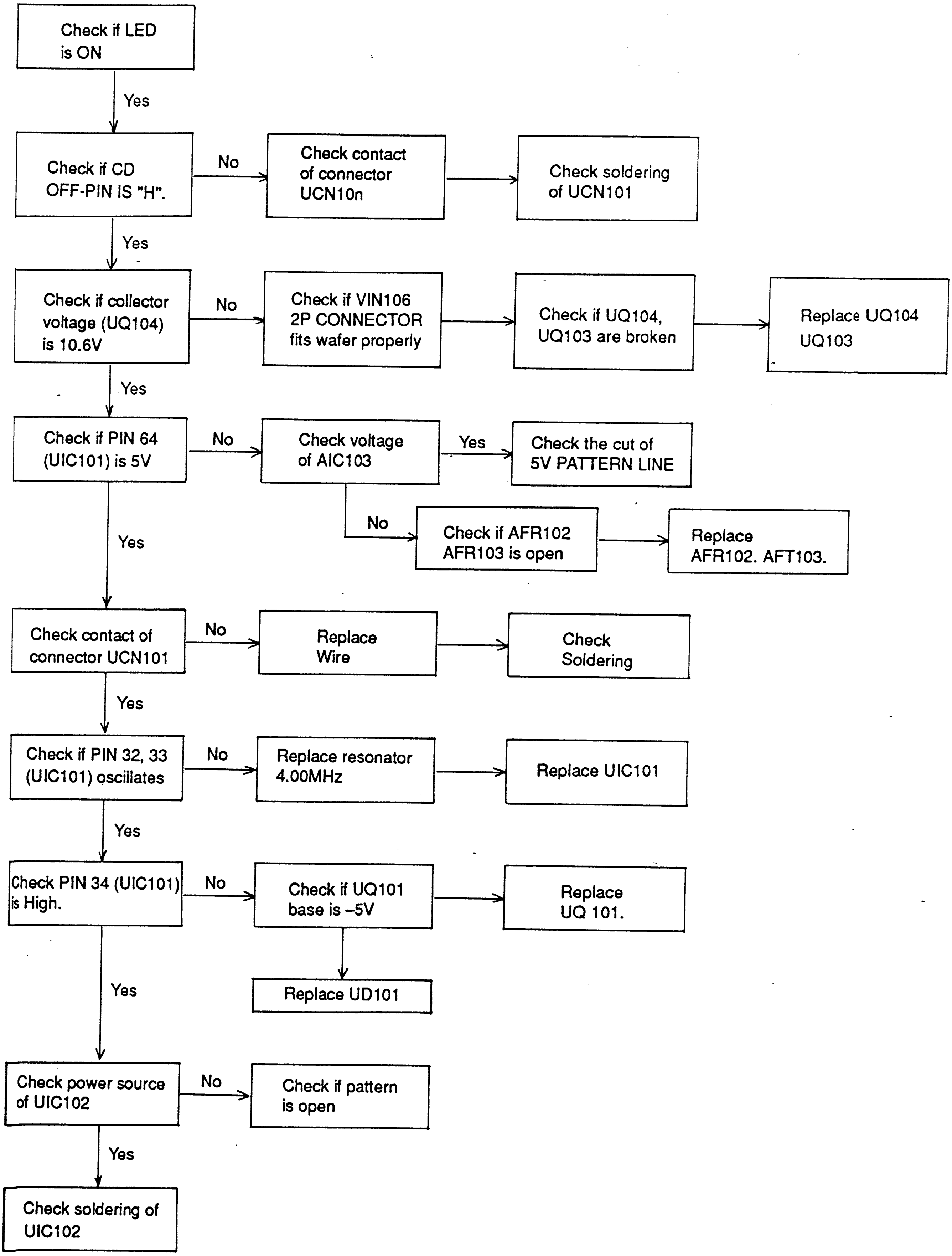
Turn DOLBY NR ON/OFF.</td><td>● CHECK PIN NO 5
DURING P/B ; H
DURING R/P ; L
DURING DUBBING ; H
● When inoperative, check DQ1
<table>
<tr><th></th><th>P/B</th><th>R/P</th><th>DUBBING</th></tr>
<tr><td>DQ1</td><td>OFF</td><td>ON</td><td>ON</td></tr>
</table>
● Check PIN NO 12
<table>
<tr><th>DONBY NR</th><th>OFF</th><th>NO</th></tr>
<tr><td>PIN 12</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>LINE INPUT AMP
DIC2 (BA3312)</td><td>ALC (Automatic level Control)</td><td>● Check PIN NO 4 ; 0.8V~1.1V</td></tr>
<tr><td>BIAS OSC

R/P SWITCHING</td><td>Oscillate recording bias (105KHz)

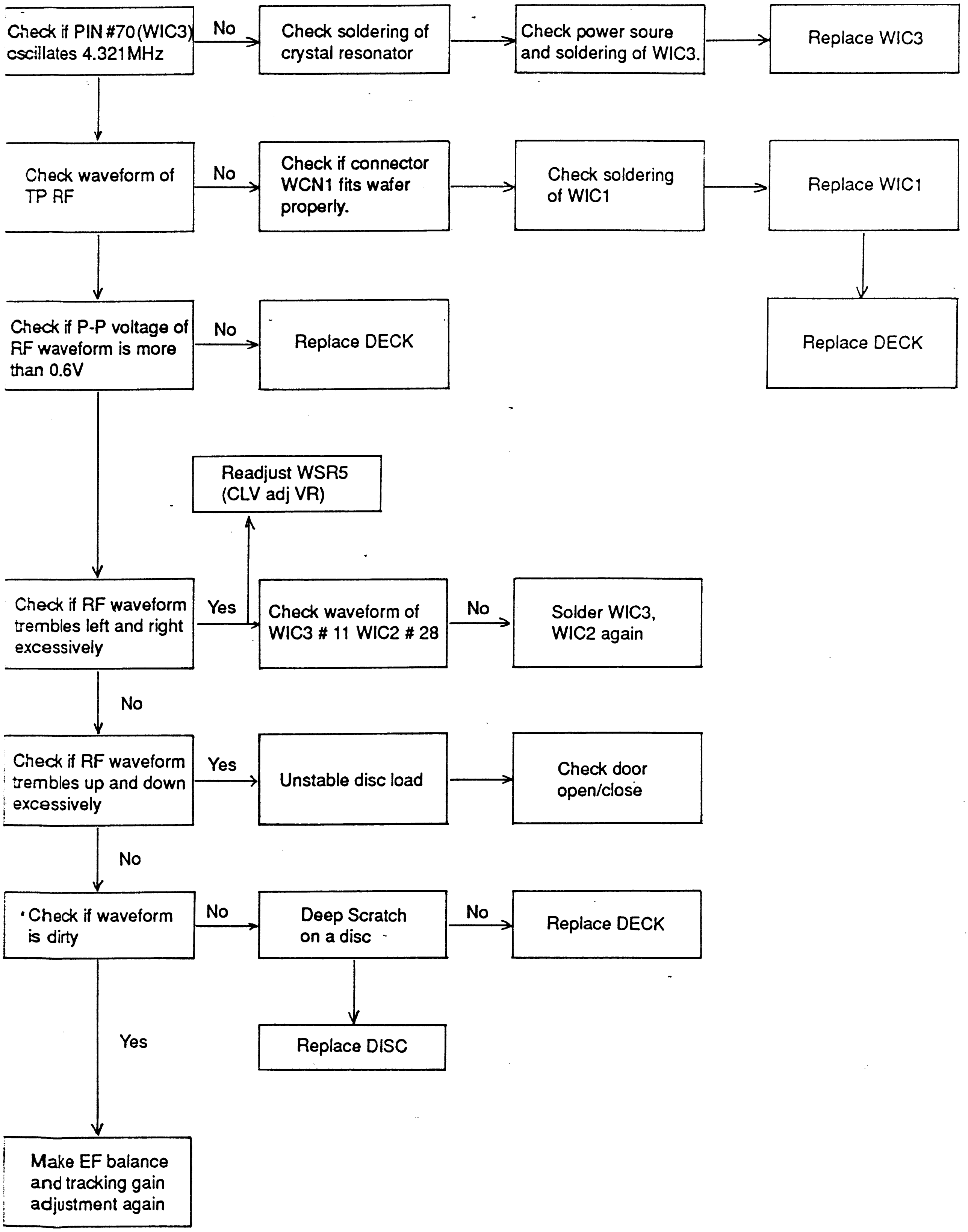
Convert PLAY/REC head of DECK B</td><td>● Check TP3, 4
● When malfunction, check LQ1
<table>
<tr><th></th><th>REC</th><th>DUBBING</th></tr>
<tr><td>LQ1</td><td>ON</td><td>ON</td></tr>
</table>
● Check the base of LQ1L, R
LQ2L, R, LQ4L, R
<table>
<tr><th></th><th>LQ1L, R</th><th>LQ2L, R</th><th>LQ4L, R</th></tr>
<tr><td>REC</td><td>OFF</td><td>OFF</td><td>ON</td></tr>
<tr><td>PLAY</td><td>ON</td><td>ON</td><td>OFF</td></tr>
</table></td></tr>
<tr><td>μ – COM
UIC1 (LC66508-4296)</td><td>● Control DECK mecha
● Control LCD DISPLAY
● Control MUTE
● Control each circuitry</td><td>● Check RESET

</td></tr>
</table>

3. CD SECTION

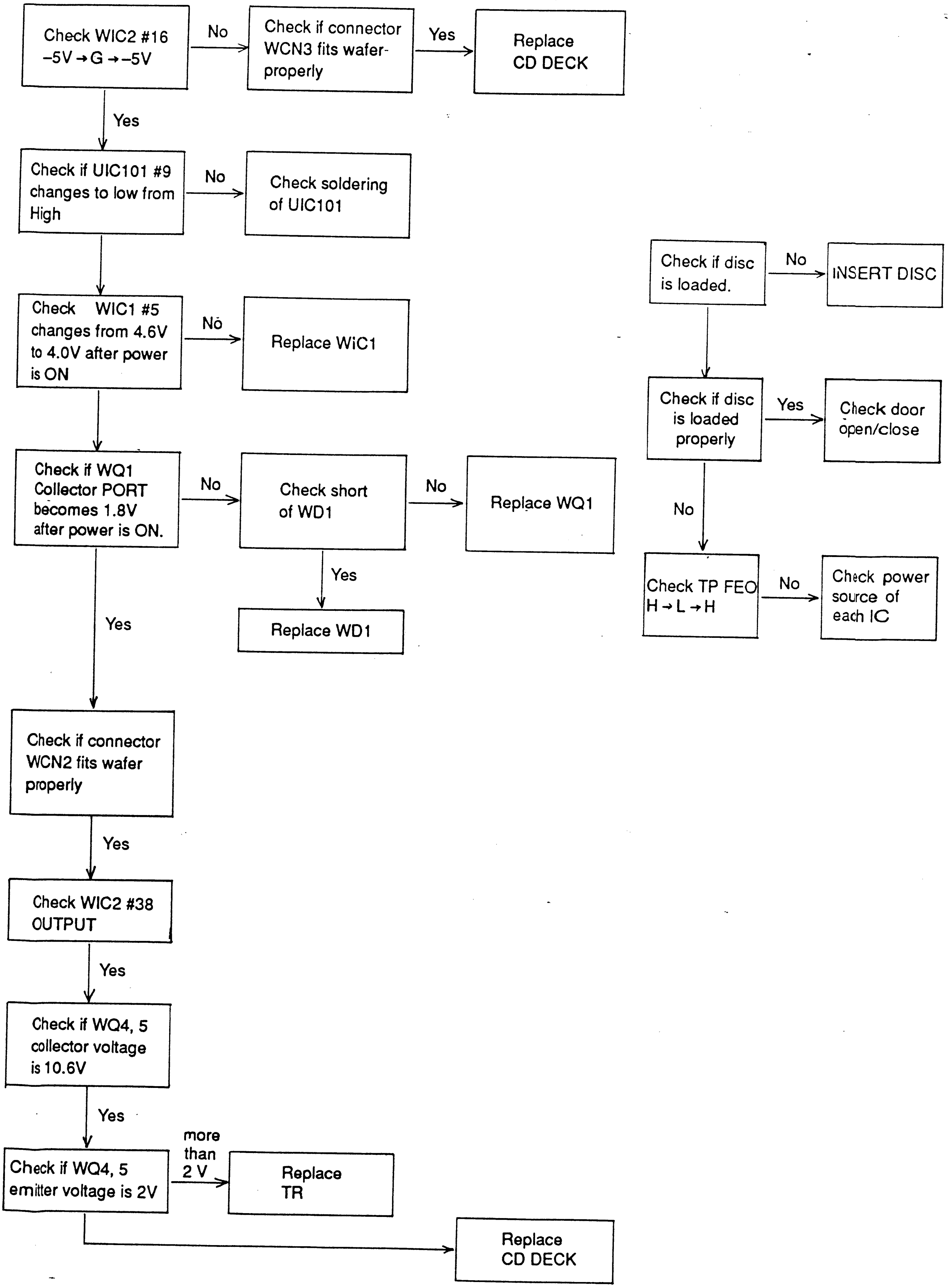
- **CD DISPLAY INSENSIBLE**


Check if LED is ON
Yes
Check if CD OFF-PIN IS "H".
No
Check contact of connector UCN10n
Check soldering of UCN101
Yes
Check if collector voltage (UQ104) is 10.6V
No
Check if VIN106 2P CONNECTOR fits wafer properly
Check if UQ104, UQ103 are broken
Replace UQ104 UQ103
Yes
Check if PIN 64 (UIC101) is 5V
No
Check voltage of AIC103
Yes
Check the cut of 5V PATTERN LINE
No
Check if AFR102 AFR103 is open
Replace AFR102. AFT103.
Yes
Check contact of connector UCN101
No
Replace Wire
Check Soldering
Yes
Check if PIN 32, 33 (UIC101) oscillates
No
Replace resonator 4.00MHz
Replace UIC101
Yes
Check PIN 34 (UIC101) is High.
No
Check if UQ101 base is –5V
Replace UQ 101.
Replace UD101
Yes
Check power source of UIC102
No
Check if pattern is open
Yes
Check soldering of UIC102

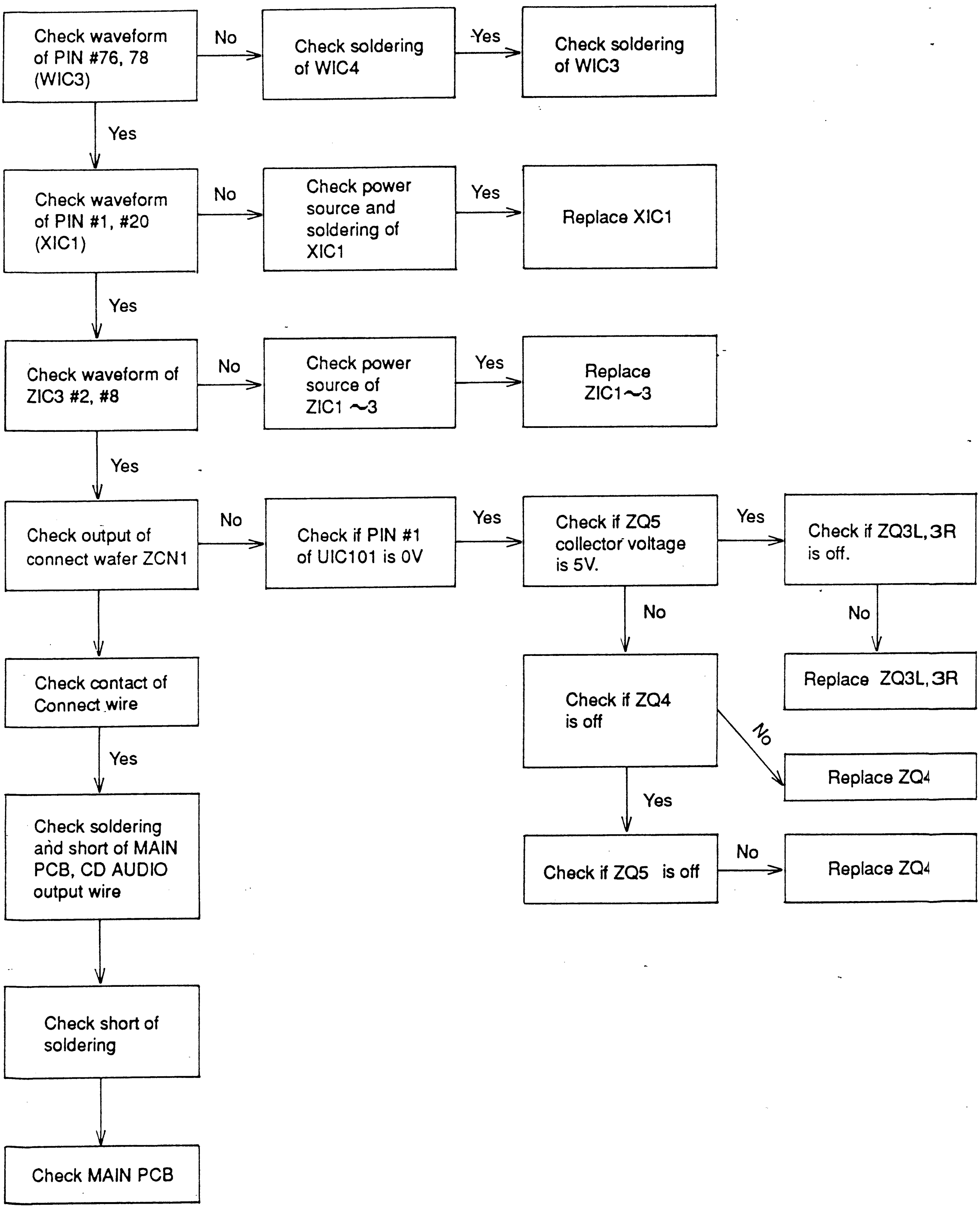
- **LEAD IN NOT WORKING**


Check if PIN #70(WIC3) oscillates 4.321MHz
No
Check soldering of crystal resonator
Check power soure and soldering of WIC3.
Replace WIC3
Check waveform of TP RF
No
Check if connector WCN1 fits wafer properly.
Check soldering of WIC1
Replace WIC1
Check if P-P voltage of RF waveform is more than 0.6V
No
Replace DECK
Replace DECK
Readjust WSR5 (CLV adj VR)
Check if RF waveform trembles left and right excessively
Yes
Check waveform of WIC3 # 11 WIC2 # 28
No
Solder WIC3, WIC2 again
No
Check if RF waveform trembles up and down excessively
Yes
Unstable disc load
Check door open/close
No
Check if waveform is dirty
No
Deep Scratch on a disc
No
Replace DECK
Replace DISC
Yes
Make EF balance and tracking gain adjustment again

- **DISC DOESN'T ROTATE**


Check WIC2 #16 -5V → G → -5V
No
Check if connector WCN3 fits wafer-properly
Yes
Replace CD DECK
Yes
Check if UIC101 #9 changes to low from High
No
Check soldering of UIC101
Check WIC1 #5 changes from 4.6V to 4.0V after power is ON
No
Replace WiC1
Check if WQ1 Collector PORT becomes 1.8V after power is ON.
No
Check short of WD1
No
Replace WQ1
Yes
Replace WD1
Yes
Check if connector WCN2 fits wafer properly
Yes
Check WIC2 #38 OUTPUT
Yes
Check if WQ4, 5 collector voltage is 10.6V
Yes
Check if WQ4, 5 emitter voltage is 2V
more than 2 V
Replace TR
Replace CD DECK
Check if disc is loaded.
No
INSERT DISC
Check if disc is loaded properly
Yes
Check door open/close
No
Check TP FEO H → L → H
No
Check power source of each IC

- **NO AUDIO OUT**


Check waveform of PIN #76, 78 (WIC3)
No
Check soldering of WIC4
Yes
Check soldering of WIC3
Yes
Check waveform of PIN #1, #20 (XIC1)
No
Check power source and soldering of XIC1
Yes
Replace XIC1
Yes
Check waveform of ZIC3 #2, #8
No
Check power source of ZIC1 ~3
Yes
Replace ZIC1~3
Yes
Check output of connect wafer ZCN1
No
Check if PIN #1 of UIC101 is 0V
Yes
Check if ZQ5 collector voltage is 5V.
Yes
Check if ZQ3L,3R is off.
No
Replace ZQ3L,3R
No
Check if ZQ4 is off
No
Replace ZQ4
Yes
Check if ZQ5 is off
No
Replace ZQ4
Check contact of Connect wire
Yes
Check soldering and short of MAIN PCB, CD AUDIO output wire
Check short of soldering
Check MAIN PCB

■ ALIGNMENT LOCATION AND ADJUSTMENT PROCEDURE

1. TUNER SECTION

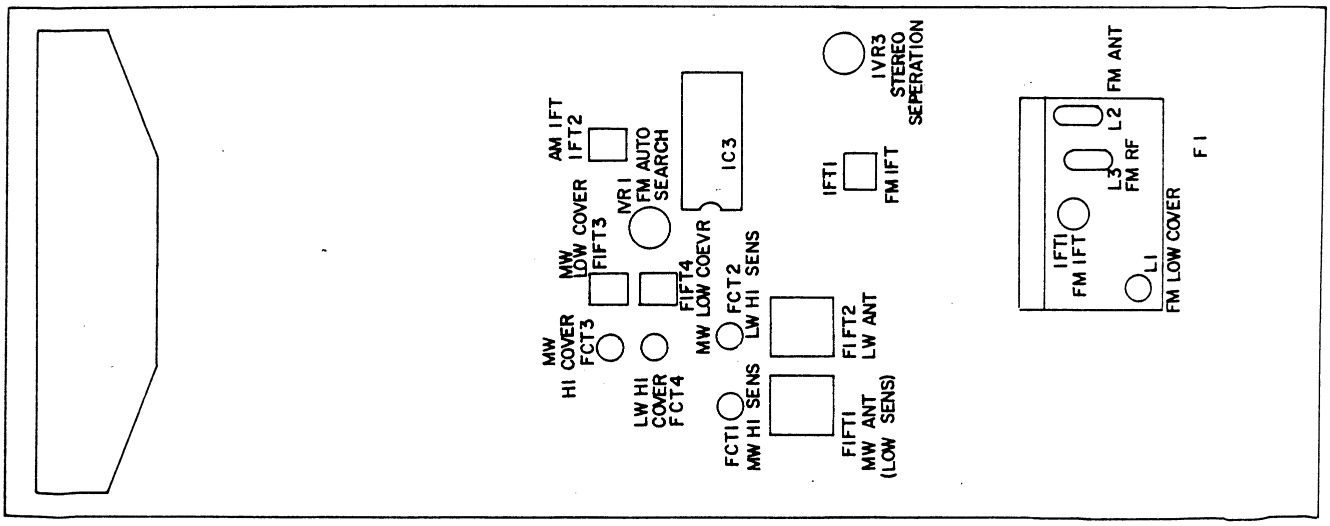
1. INSTRUMENTS AND TOOLS

1) AM STANDARD SIGNAL GENERATOR
   : 100KHz - 35MHz, 400Hz, 30% MOD
2) FM STANDARD SIGNAL GENERATOR
   : OUTPUT IMPEDANCE 300 OHMS, 400Hz, 40KHz DEV.
3) FM/AM IF GENERATOR: 10.7MHz, 450KHz
4) OSCILLOSCOPE
5) OUTPUT METER: LEVEL METER OR AC VOLTMETER. (VTVM)
6) FREQUENCY COUNTER
7) LOOP ANTENNA
8) DUMMY LOAD (8 OHMS)
9) DC VOLT METER

2. IMPORTANTS

1) Check the power source voltage.
2) Set the "FUNCTION" and "BAND" switch to a band to be aligned.
3) The "EQUALIZER" and "BALANCE" control should be turned to the mid position.
4) The standard modulation is the 30% with 400Hz signal for AM and is the 40KHz deviation with 400Hz signal for FM.
5) The standard output is 500mW (8 OHMS).

3. LOCATION OF ADJUSTMENT POINT (TUNER PCB; PARTS SIDE)


AM IFT
IFT2
MW LOW COVER
FIFT3
VR1
FM AUTO SEARCH
IC3
IVR3
STEREO SEPERATION
IFT1
FM IFT
FM ANT
L2
L3
FM RF
F1
IFT1
FM IFT
L1
FM LOW COVER
MW HI COVER
FCT3
FIFT4
MW LOW COEVR
FCT2
LW HI SENS
FIFT2
LW ANT
LW HI COVER
FCT4
FCT1
MW HI SENS
FIFT1
MW ANT
(LOW SENS)

4. ADJUSTMENT PROCEDURE

1) FM ADJUSTMENT

Circuit to be Adjusted	Measuring Instrument & Arrangement	Step	S.S.G Frequency	Radio Freq. Setting	Adjusting point	Adjust for
Intermediate Frequency	Connect the FM IF generator to body of ICF1 and take out the signal from FM IF output terminal. (see Fig. 1)	1	10.7MHz	87.5MHz (LOW END)	IFT1 FM IFT COIL	Max gain and symmetrical "S" curve
		2	Repeat step 1 until the "S" curve doesn't change from low frequency to high.			
Frequency coverage	Connect FM signal generator to "FM ANT". Connect speaker to output meter (VTVM) across 8 ohm load. (see Fig. 2)	3	87.5MHz	87.5MHz (LOW END)	L1 FM OSC	VT : 3.0V ± 0.5V
		4	108MHz	108MHz (HIGH END)	Need not adjust.	VT : 7.8 – 9V confirmation
		5	Repeat steps 3 and 4 to obtain optimum frequency range.			
Tracking	Same as frequency coverage.	6	90MHz	Tune to signal (90MHz)	L2, 3 FM ANT, RF COIL	Maximum output
		7	106MHz	Tune to signal (106MHz)	Need not adjust	Maximum output
		8	Repeat steps 6 and 7 to obtain suitable sensitivity at 90MHz and 106MHz.			

FM IF OUTPUT : IIC1 PIN NO 8

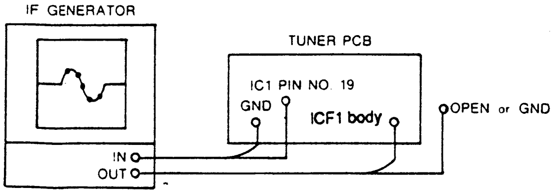

IF GENERATOR
TUNER PCB
IC1 PIN NO. 19
GND
ICF1 body
OPEN or GND
IN
OUT

Fig. 1 FM IF

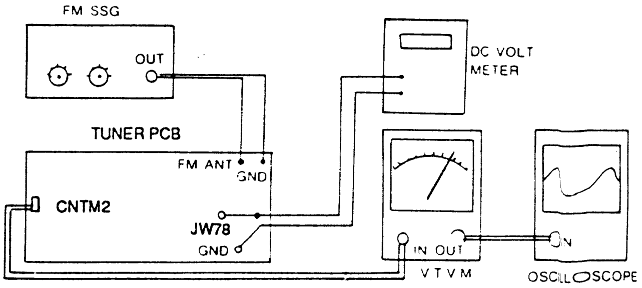

FM SSG
OUT
TUNER PCB
FM ANT
GND
CNTM2
JW78
GND
DC VOLT METER
IN OUT
V T V M
IN
OSCILLOSCOPE

Fig. 2. FM COVERAGE, TRACKING

2) 2 BAND (FM/AM) AM ADJUSTMENT

Circuit to be Adjusted	Measuring Instrument & Arrangement	Step	S.S.G Frequency	Radio Freq. Setting	Adjusting point	Adjust for
Intermediate Frequency	Connect the FM/AM IF generator to loop ANT. Couple the AM ANT coil close to the loop ANT and take the signal from AM IF out point (IIC1 pin NO 5) (see Fig. 3)	1	450KHz	Tune to the LOW END (530 or 531	IIFT2 AM IFT COIL	Maximum output and best "V" curve.
		2	Repeat until no further improvement can be made.			
AM Frequency coverage	Connect the AM signal generator to the loop antenna, VTVM and oscilloscope as Fig. 4.	3	530KHZ (or 522KHz)	Tune to the LOW END (530 or 531KHz)	IIFT3 AM OSC COIL	VT : 0.9V ± 0.05V
		4	1610KHz (or 1622KHz)	1610 or 1602KHz (HIGH END)	FTC3 AM OSC TRIMMER	VT : 9.0V ± 0.05V
		5	Repeat step 3 and 4 several times.			
AM Tracking	See Fig 4.	6	600KHz (603KHz)	Tune to signal (600KHz or 603KHz)	IIFT1 AM ANT COIL	Maximum output
		7	1400KHz (1404KHz)	Tune to signal (1400KHz or 1404KHz)	FCT1 AM ANT TRIMMER	Maximum output
		8	Repeat step 6 and 7 to obtain suitable sensitivity at 600KHz (603KHz) and 1400KHz. (1404KHz).			

AM IF OUTPUT : IIC1 PIN NO 5

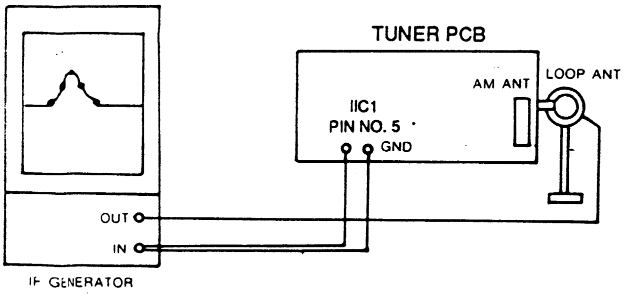

TUNER PCB
AM ANT
LOOP ANT
IIC1
PIN NO. 5
GND
OUT
IN
IF GENERATOR

Fig. 3 AM IF

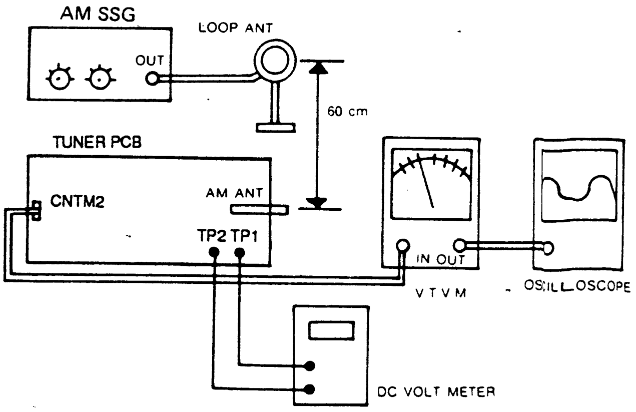

AM SSG
OUT
LOOP ANT
60 cm
TUNER PCB
CNTM2
AM ANT
TP2 TP1
IN OUT
VTVM
OSCILLOSCOPE
DC VOLT METER

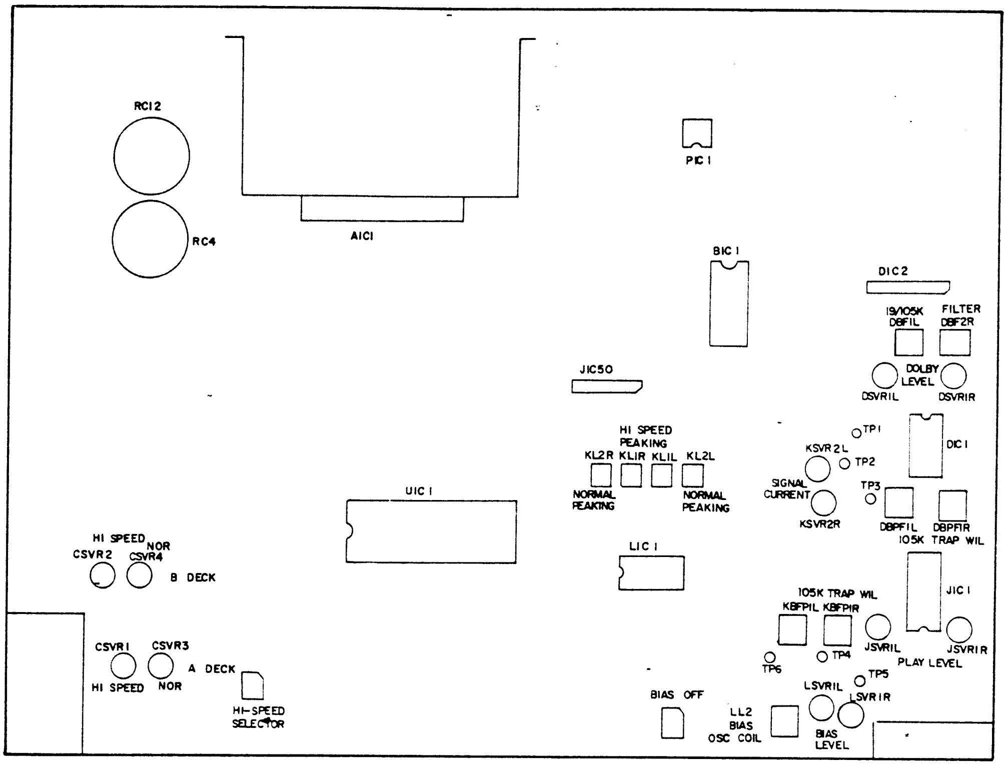
Fig. 4 AM COVERAGE, TRACKING

3) 3 BAND (FM/MW/LW) MW(AM)/LW ADJUSTMENT

Circuit to be Adjusted	Measuring Instrument & Arrangement	Step	S.S.G Frequency	Radio Freq. Setting	Adjusting point	Adjust for
IF	IF adjustment is the same as 2 band's.					
MW(AM) frequency coverage	Same as 2 Band's.					
MW(AM) tracking	Same as 2 Band's.					
LW frequency coverage	See Fig. 4	1	146KHz	Tune to signal (146KHz)	IIFT4 LW OSC COIL	VT : 0.9V ± 0.05V
		2	290KHz	Tune to signal (290KHz)	FTC4 LW OSC TRIMMER	VT : 5.0V ± 0.05V
		3	Repeat step 1 and 2 several times.			
LM tracking	See Fig. 4	4	160KHz	Tune to signal (160KHz)	IIFT2 LW ANT COIL	Maximum output
		5	270KHz	Tune to signal (270KHz)	FCT2 LW ANT TRIMMER	Maximum output
		6	Repeat steps 4 and 5 to obtain suitable sensitivity at 160KHz and 270KHz..			

2 TAPE SECTION

1. LOCATION OF ADJUSTMENT POINT (MAIN PCB ; PARTS SIDE)


RCI2
RC4
AICI
PIC I
BIC I
DIC2
19/105K DBFIL
FILTER DBF2R
DOLBY LEVEL
DSVRIL
DSVRIR
JIC50
HI SPEED PEAKING
KL2R KLIR KLIL KL2L
NORMAL PEAKING
NORMAL PEAKING
TP1
KSVR2L
TP2
DIC I
SIGNAL CURRENT
TP3
KSVR2R
DBPFIL
DBPFIR
105K TRAP WIL
UIC I
LIC I
HI SPEED
NOR
CSVR2
CSVR4
B DECK
105K TRAP WIL
KBFPIL KBFPIR
JIC I
JSVRIL
JSVRIR
PLAY LEVEL
TP6
TP4
TP5
CSVRI
CSVR3
A DECK
HI SPEED
NOR
HI-SPEED SELECTOR
BIAS OFF
LL2 BIAS OSC COIL
LSVRIL
LSVRIR
BIAS LEVEL

2. ADJUSTMENT PROCEDURE

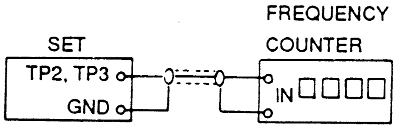
1) TAPE SPEED ADJUSTMENT

NOTE

1) Measuring tape i) MTT-111 (or equivalent) (tape in which 3KHz signal is recorded).

ii) MTT-5521 (or equivalent)

2) Connection of measuring equipments (figure1)


FREQUENCY COUNTER
SET
TP2, TP3
GND
IN

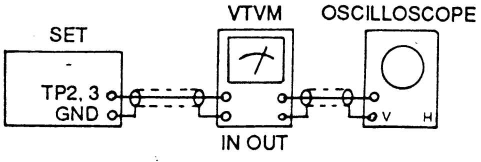
(FIGURE 1)

STEP	ITEM	CONNECTION	PREPARATION	ADJUSTMENT	ADJUST FOR	REMARK
1	Normal speed adjust-ment	Connect TP2 (L-CH), TP3 (R-CH) to the frequency counter	i) A-DECK : MTT-111 ii) Press play button iii) B-DECK : SAME	i) Adjust CSVR 3 (DECK A) ii) Adjust CSVR 7 (DECK B)	3KHz ± 1% 3KHz ± 1%	
2	High speed adjust-ment	same	i) A-DECK : MTT-111 ii) B-DECK : MTT-111	i) DECK A : Insert MTT-111 press play button and short the high speed selector adjust CSVR1 ii) DECK B : same as DECK A. Adjust CSVR2	6KHz ± 1%	

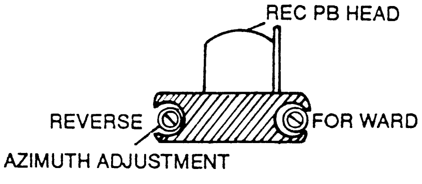
2) PLAYBACK LEVEL ADJUSTMENT

NOTE

1) Before adjustment, clean P/R head.
2) Measuring tape i) MTT-114NA (or equivalent; 12.5KHz for AZIMUTH adjustment).
   ii) MTT-150 (or equivalent; tape (200mwb/m) recorded by dolbylevel)
3) Dolby NR sw off
4) Connection of measuring equipments (figure 2).



(FIGURE 2)



(FIGURE 3)

- **DECK A**

STEP	ITEM	CONNECTION	PREPARATION	ADJUSTMENT	ADJUST FOR	REMARK
1	AZIMUTH	Connect TP2 (L-CH), TP3 (R-CH) to the VTVM and SCOPE.	Insert MTT-114NA into DECK A	1) Adjust adjustment screw as in the figure (3)	Max output and same phase (L. R channel)	Fix screw with regin lock.

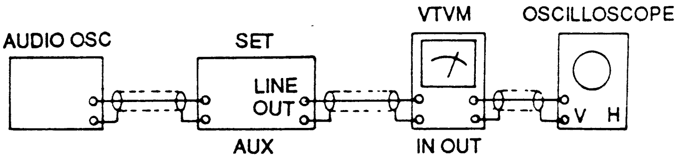
- **DECK B**

STEP	ITEM	CONNECTION	PREPARATION	ADJUSTMENT	ADJUST FOR	REMARK
1	AZIMUTH	Connect TP2 (L-CH), TP3 (R-CH) to VTVM and scope	Insert MTT-114NA into DECK B. Press PLAY button.	Adjust adjustment screw (left) as in the figure (3)	Max output and same phase (L, R channel)	FIx screw with regin lock
2	Play back output level	Connect TP2 (L-CH) to the VTVM and SCOPE.	Play MTT-150 in the DECK B	Adjust JSVR IL.	254mV ± 2dB	Refer to alignment point

3) RECORD & PLAYBACK ADJUSTMENT

NOTE

1) Connect measuring equipments as figure (4).
2) Set DOLBY NR switch to off.
3) Connect TP4 and TP5 : when adjusting recording current.
4) Measuring tape i) MTT-5521 (or equivalent : for normal record)
ii) MTT-5561 (or equivalent : for CrO_2 record)



(FIGURE 4)

STEP	ITEM	INPUT SIGNAL	CONNECT-TO	PREPARATION	ADJUSTMENT	NORMAL SETTING	REMARK
1	Bias osc freq	400Hz, 450mV supplied from audio OSC to AUX	Frequency counter, TP4 (TP6), GND	Insert MTT-5521 into DECK B and press REC button	bias OSC freq coil LL2	105KHz	See alignment point
2	Trap coil	400Hz, 450mV supplied from audio OSC to AUX.	JW229(L-CH) and GND, JW231 and GND to VTVM	Insert MTT-5521 into DECK B and press REC button	KBPFIL (L-CH) and KBPFIR (R-CH)	minumum (VTVM)	See alignment point
3	Bias current	400Hz, 450mV supplied from audio OSC to AUX.	TP5 (L-CH) and GND, TP4, and GND (R-CH) to VTVM	Insert MTT-5521 into DECK B and Press REC bttton	LSVRIL (L-CH) LSVRIR (R-CH)	58mV ± 5% (vtvm)	See alignment point

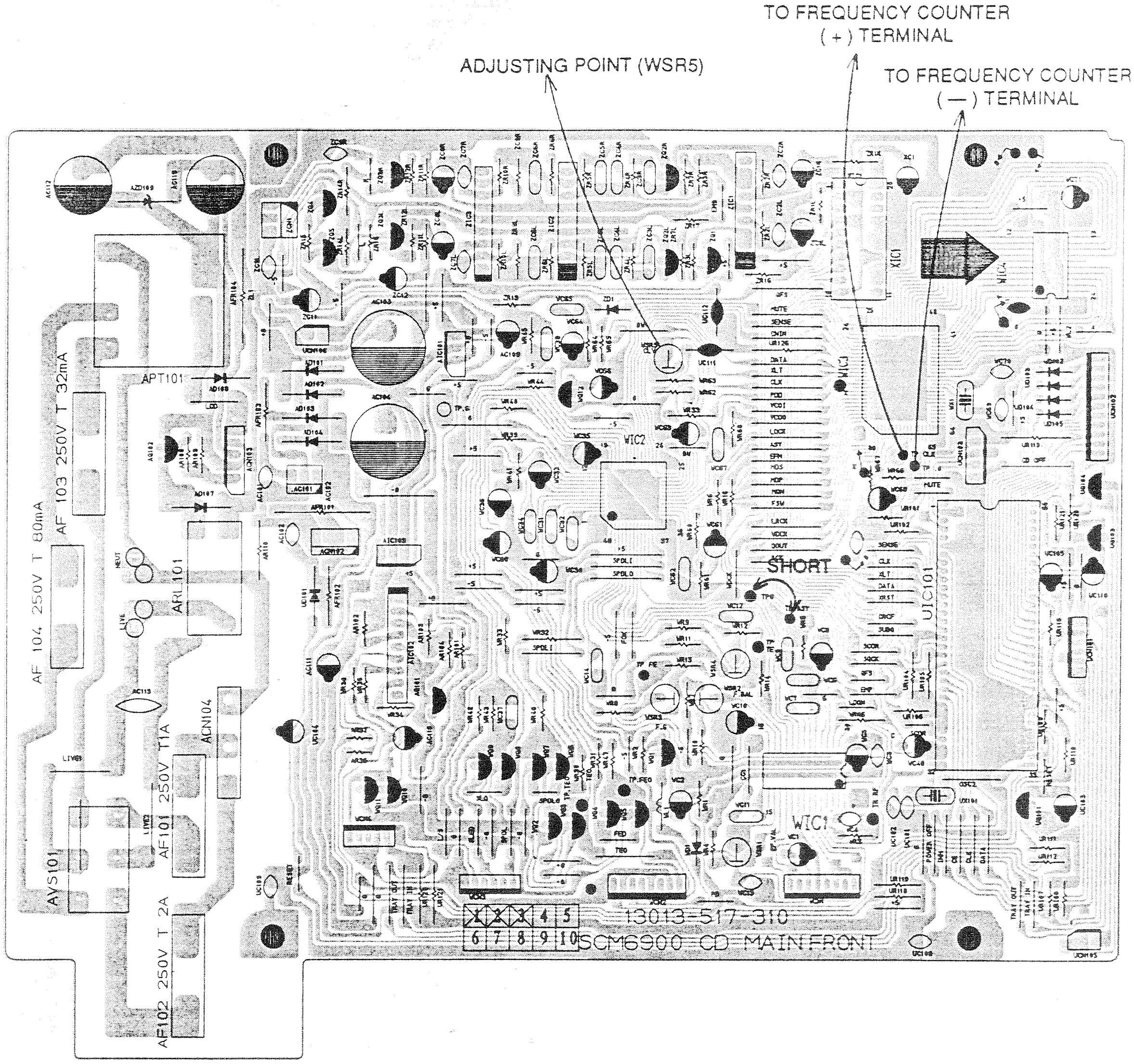
4) DOLBY LEVEL ADJUSTMENT

STEP	ITEM	INPUT SIGNAL	CONNECT-TO	PREPARATION	ADJUSTMENT	NORMAL SETTING	REMARK
1	Dolby level adjustment	400Hz, 400mV supplied from AUDIO to AUX.	TP2 (L-CH) and GND, TP3 (R-CH) and GND to VTVM	Insert MTT-5521 into DECK B and press the record button	DSVRIL (L-CH) DSVRIR (R-CH)	245mV ± 5%	See alignment point

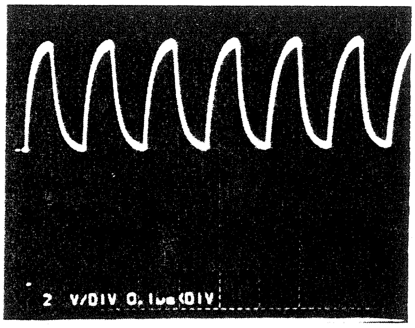
3. CD SECTION

1. VCO ADJUSTMENT

1) Turn the power on.
2) Insert a disc on the disc tray and start CLV adjustment at the stop mode.
3) Connect negative (–) terminal of the frequency counter to TP-G.
4) Connect positive (+) terminal of the frequency counter to TP-CLK.
5) Confirm the figure on the counter and short out TP-G to TP-ASY by using short wire.
6) Adjust WSR5 of the set so that frequency counter reads 4.200 MHz ~4.210 MHz.

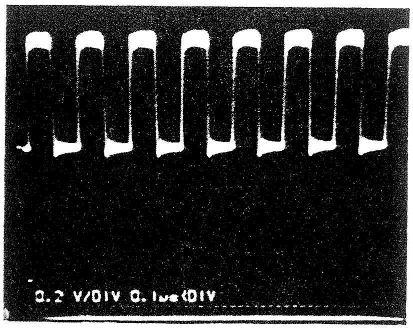

TO FREQUENCY COUNTER
(+) TERMINAL
ADJUSTING POINT (WSR5)
TO FREQUENCY COUNTER
(—) TERMINAL
SHORT
WIC2
WIC3
WIC1
UIC101
APT101
AF 103 250V T 32mA
AF 104 250V T 80mA
AF101 250V T1A
AF102 250V T 2A
AVS101
ARL101
ACN104
13013-517-310
SCM6900 CD MAIN FRONT

#13



1:1

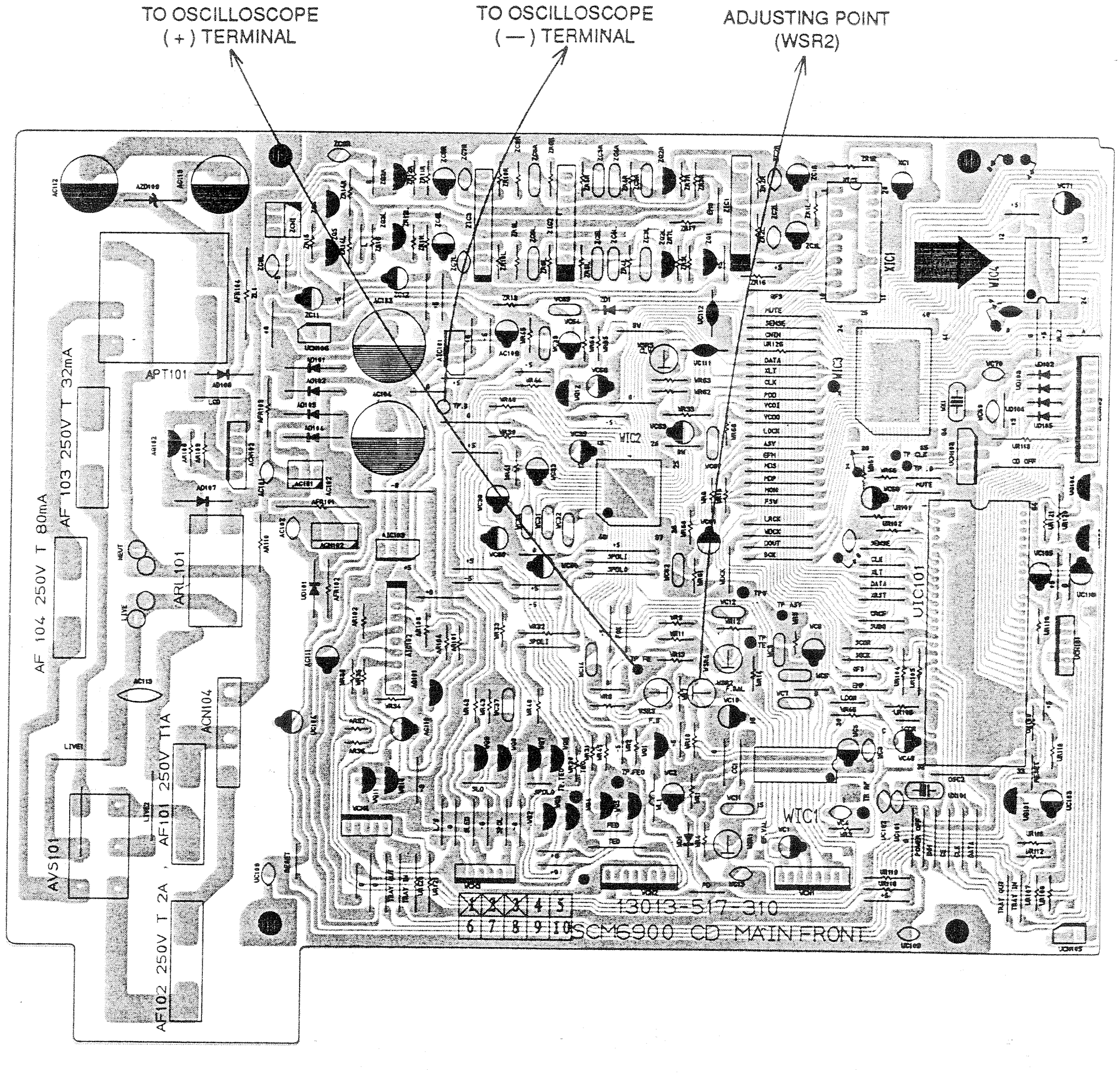
#4



10:1

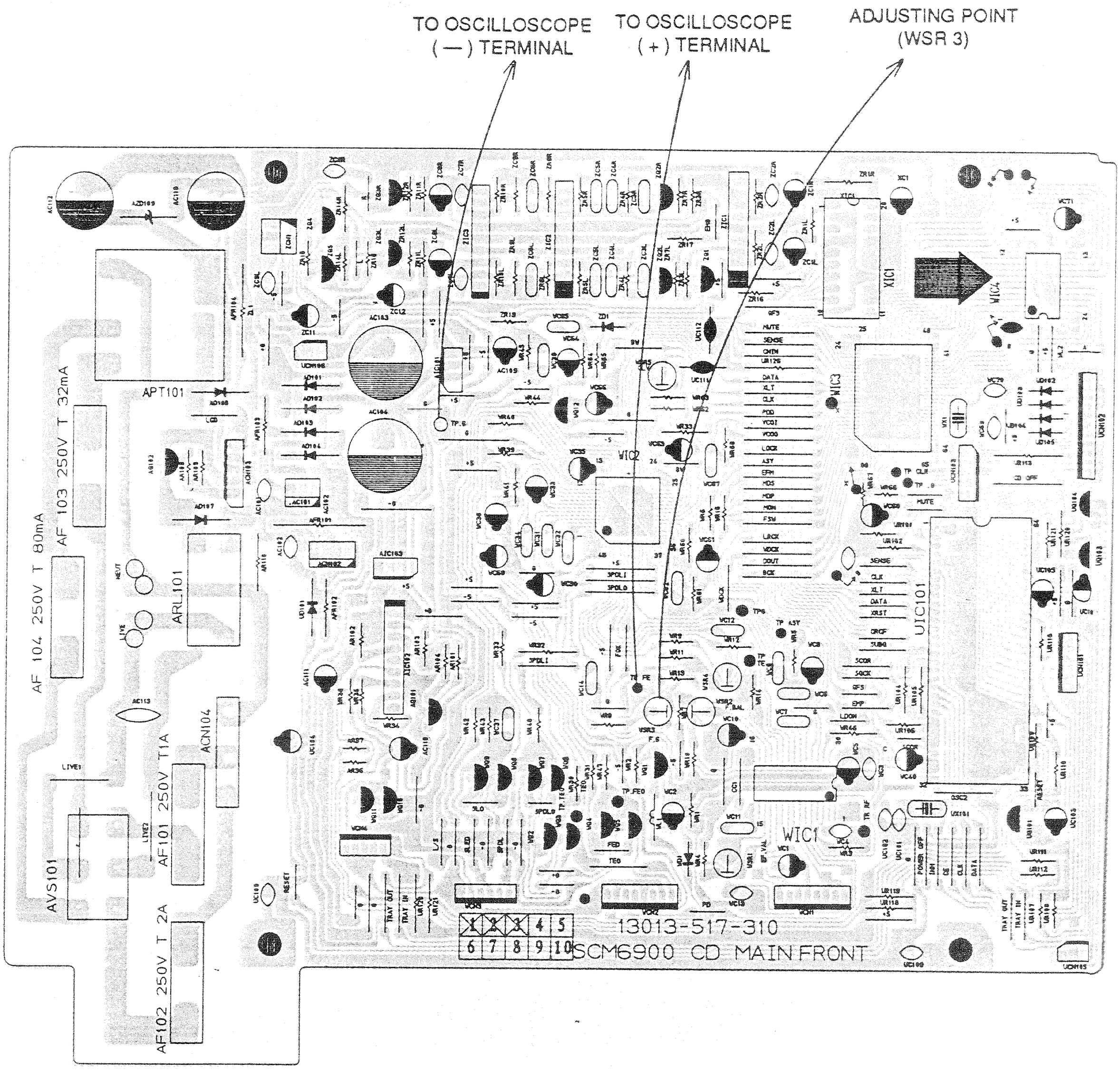
2. FOCUS BIAS ADJUSTMENT

1) Adjust the SET on the stop mode.
2) Set VOLT/DIV of the oscilloscope AT 5mV.
3) Set TIME/DIV of the oscilloscope AT 20 µs.
4) Connect positive (+) terminal of the oscilloscope to TP-FE and connect negative (–) terminal to TP-G.
5) Adjust WSR2 so that the center of the waveform locates at 0V ± 0.05V. (1 : 1 probe)

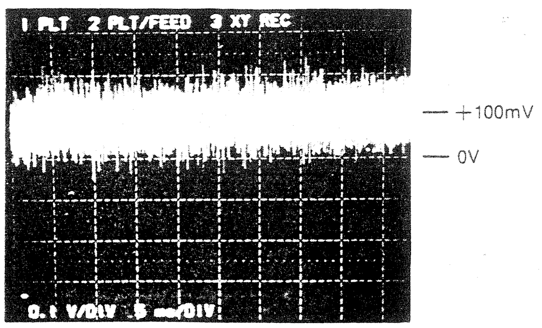

TO OSCILLOSCOPE
(+) TERMINAL
TO OSCILLOSCOPE
(—) TERMINAL
ADJUSTING POINT
(WSR2)
AF 104 250V T 80mA
AF 103 250V T 32mA
AF101 250V T1A
AF102 250V T 2A
AVS101
ARL101
ACN104
APT101
WIC1
WIC2
WIC3
XIC1
UIC101
13013-517-310
SCM6900 CD MAIN FRONT

3. FOCUS GAIN ADJUSTMENT

1) Play the SET and start adjustment.
2) Connect negative (–) terminal of the oscilloscope to TP-G.
3) Connect positive (+) terminal of the oscilloscope to TP-FE.
4) Set VOLT/DIV of the oscilloscope at 0.5V.
5) Set TIME/DIV of the oscilloscope at 0.5mS
6) Adjust WSR3 so that the center of the waveform locates at ± 100mV. (1 : 1 probe)

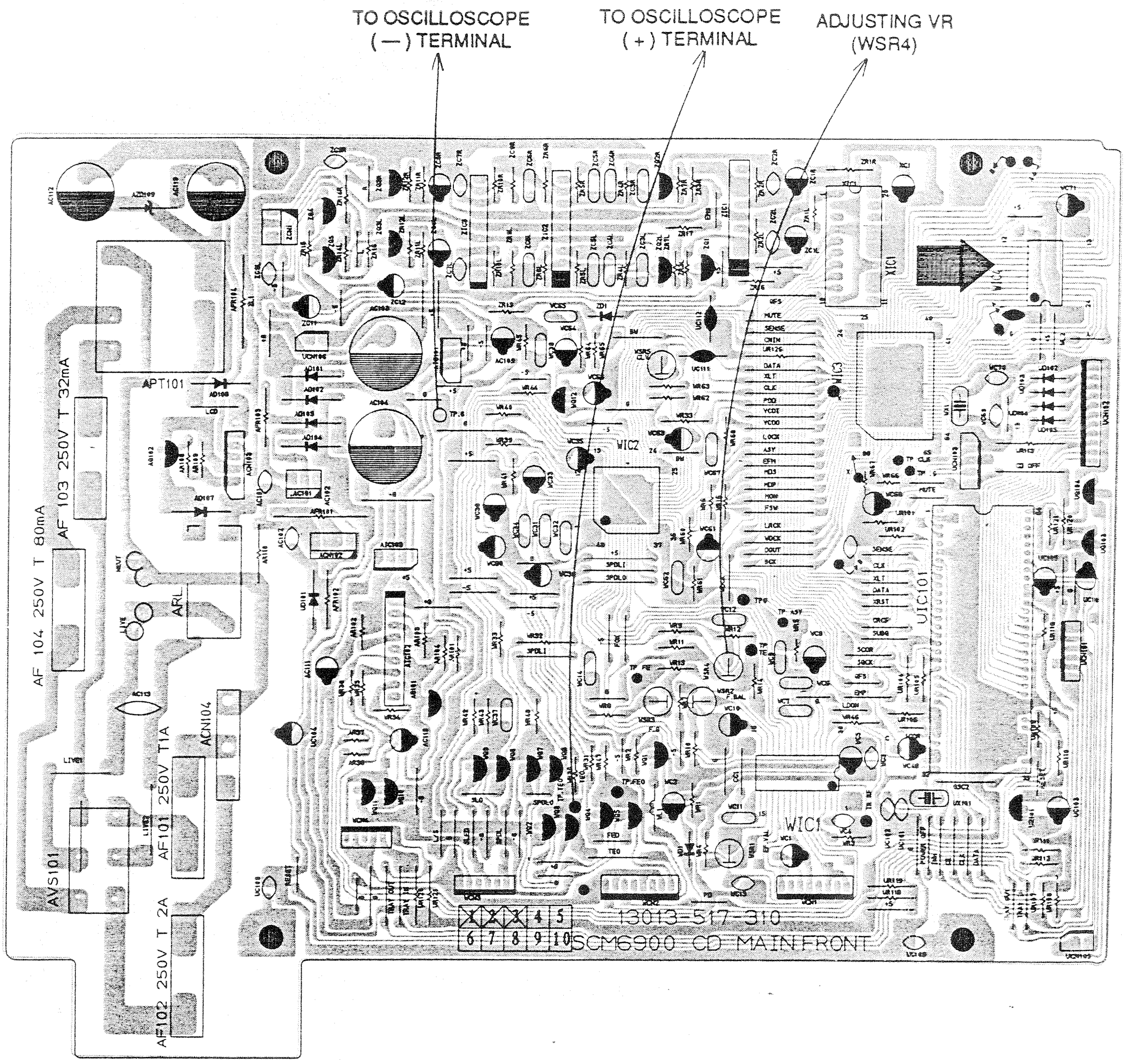

TO OSCILLOSCOPE
(—) TERMINAL
TO OSCILLOSCOPE
(+) TERMINAL
ADJUSTING POINT
(WSR 3)
AF 104 250V T 80mA
AF 103 250V T 32mA
AF101 250V T1A
AF102 250V T 2A
AVS101
ARL101
ACN104
APT101
WIC1
WIC2
WIC3
WIC4
XIC1
UIC101
TP.G
TP FE
WSR3
13013-517-310
SCM6900 CD MAIN FRONT

#22

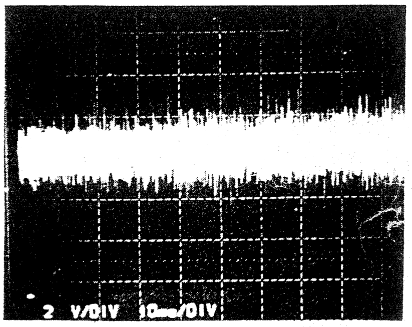


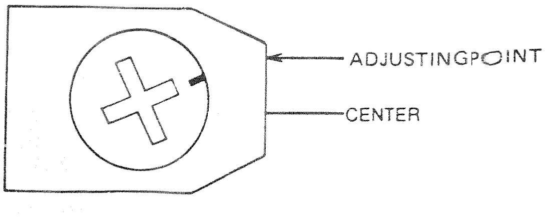
4. TRACKING GAIN ADJUSTMENT

1) Play the set and start adjustment.
2) Connect negative (–) terminal of the oscilloscope to TP-G.
3) Connect positive (+) terminal of the oscilloscope to TP-TEO.
4) Set VOLT/DIV of the oscilloscope at 0.5V.
5) Set TIME/DIV of the oscilloscope at 0.2mS.
6) Adjust WSR4 so that peak to peak waveform becomes 1.0V ± 0.1V. (1 : 1 probe)


TO OSCILLOSCOPE
(—) TERMINAL
TO OSCILLOSCOPE
(+) TERMINAL
ADJUSTING VR
(WSR4)
APT101
AF 103 250V T 32mA
AF 104 250V T 80mA
ARL
ACN104
AF101 250V T1A
AVS101
AF102 250V T 2A
WIC2
WIC3
XIC1
UIC101
WIC1
TP-G
TP-TEO
13013-517-310
SCM6900 CD MAIN FRONT

#21

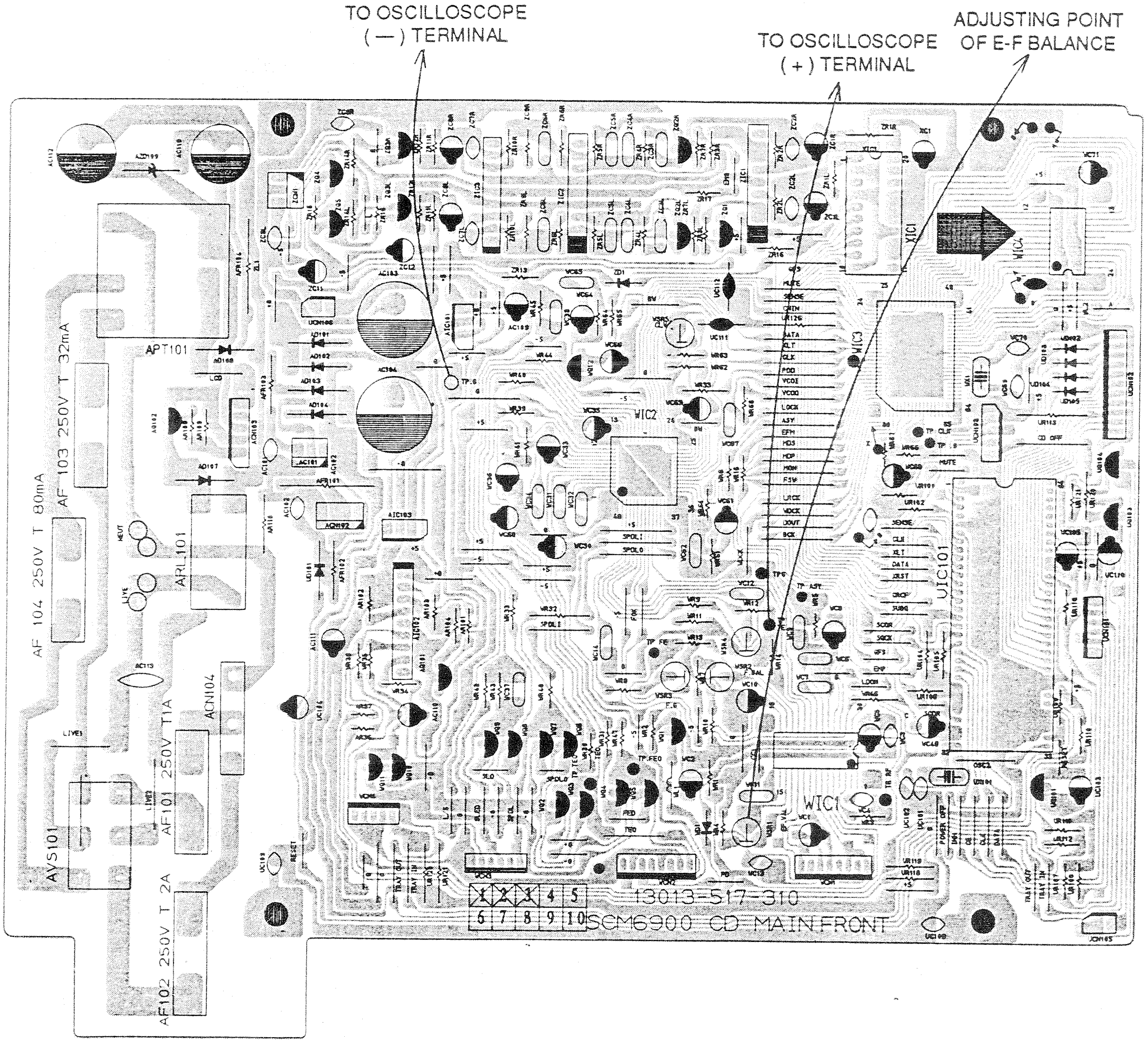



ADJUSTINGPOINT
CENTER

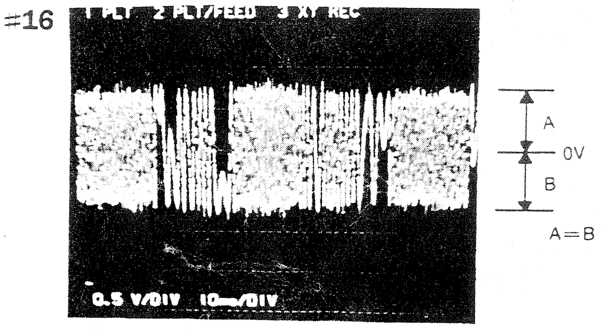
WSR4

5. E-F BALANCE ADJUSTMENT

1) Set VOLT/DIV of the oscilloscope at 5V.
2) Set TIME/DIV of the oscilloscope at 0.5mS.
3) Connect positive (+) terminal of the oscilloscope to TP-TE.
4) Connect negative (−) terminal of the oscilloscope to TP-G.
5) Insert a disc, play it and start E-F balance adjustment in the middle track of the disc.
6) Short TP-G and TP.TEO using short wire.
7) Adjust WSR1 of the set so that the center of peak to peak waveform locates −2.0 ~ −4.0mV.
8) Remove the short wire and remove (+) and (−) terminal of the oscilloscope. (1 : 1 probe)

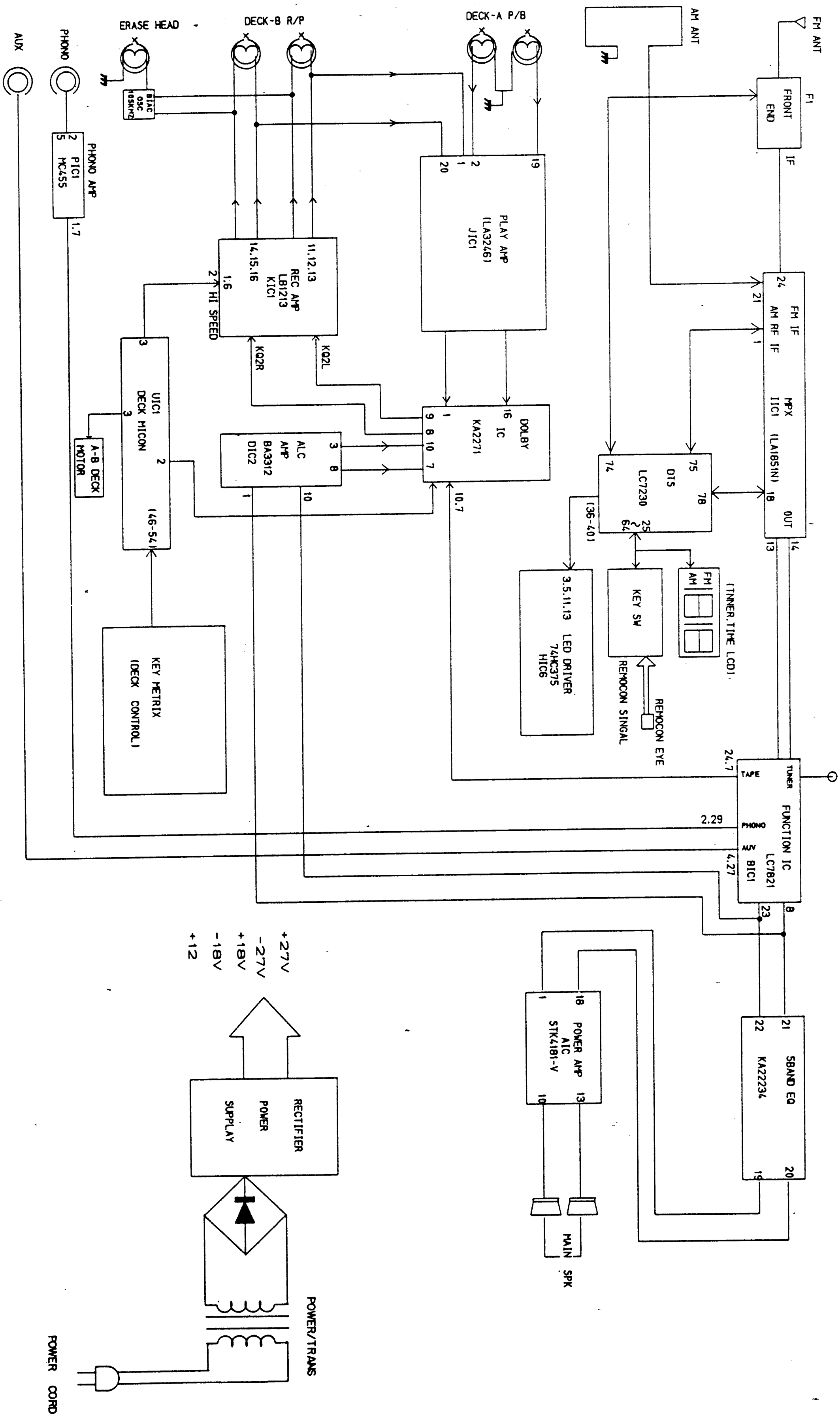

TO OSCILLOSCOPE
(—) TERMINAL
TO OSCILLOSCOPE
(+) TERMINAL
ADJUSTING POINT
OF E-F BALANCE
APT101
AF 103 250V T 32mA
AF 104 250V T 80mA
AFL101
ACN104
AF101 250V T1A
AVS101
AF102 250V T 2A
WIC2
WIC3
WIC1
YIC1
UIC101
13013-517-310
SCM6900 CD MAIN FRONT
1 2 3 4 5
6 7 8 9 10

≠16

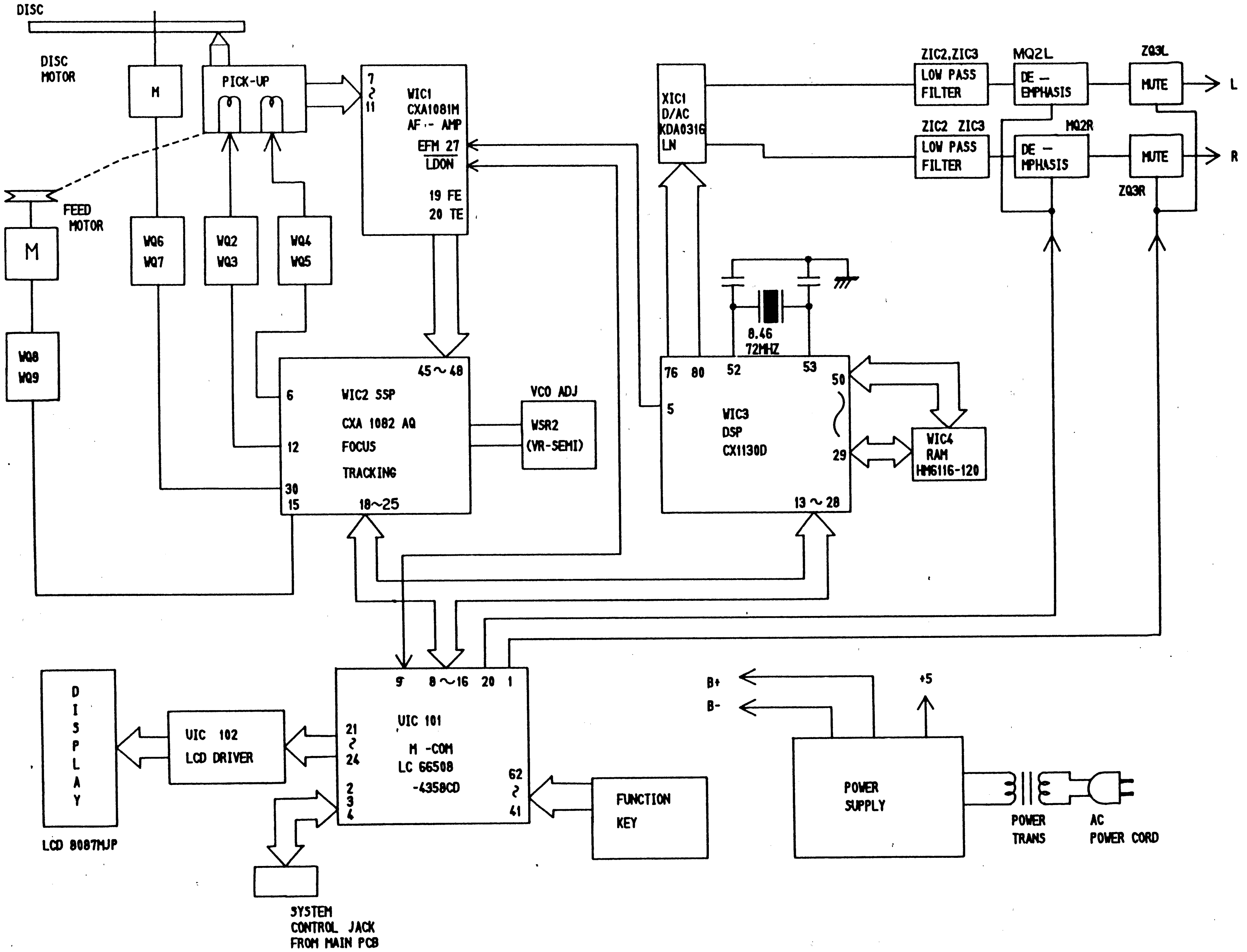


BLOCK DIAGRAM

1. MAIN SECTION

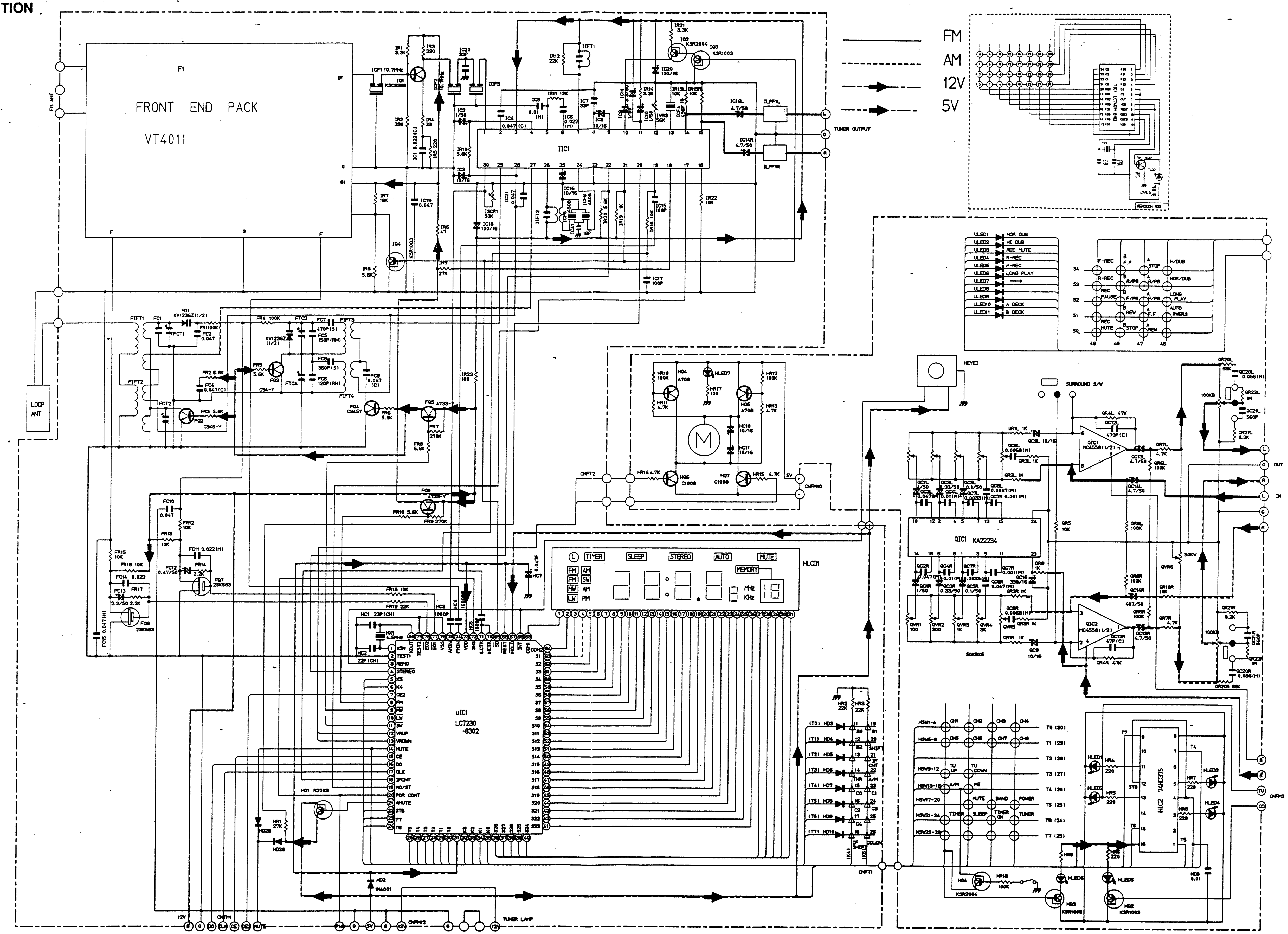

AUX
PHONO
ERASE HEAD
BIAC OSC 105KHZ
DECK-B R/P
DECK-A P/B
AM ANT
FM ANT
F1
FRONT END
IF
PHONO AMP
PIC1
MC455
2
5
1.7
PLAY AMP
(LA3246)
JIC1
20
1
2
19
REC AMP
LB1213
KIC1
11.12.13
14.15.16
1.6
2.7
HI SPEED
KQ2R
KQ2L
FM IF
AM RF IF
MPX
IIC1 (LA1851N)
24
21
1
18
OUT
13
14
DOLBY IC
KA2271
16
1
9
8
10
7
10.7
ALC AMP
BA3312
DIC2
3
8
1
10
UIC1
DECK MICON
3
3
2
(46-54)
A-B DECK MOTOR
KEY METRIX
(DECK CONTROL)
DTS
LC7230
75
74
78
25~64
(36-40)
3.5.11.13
LED DRIVER
74HC375
HIC6
KEY SW
REMOCON SINGAL
REMOCON EYE
(TNNER.TIME LCD)
FM
AM
FUNCTION IC
LC7821
BIC1
TUNER
TAPE
PHONO
AUX
24.7
2.29
4.27
23
8
5BAND EQ
KA2234
21
22
19
20
POWER AMP
AIC
STK4181-V
18
1
13
10
MAIN SPK
+27V
-27V
+18V
-18V
+12
RECTIFIER
POWER
SUPPLAY
POWER/TRANS
POWER CORD

2. CD SECTION


DISC
DISC MOTOR
M
PICK-UP
FEED MOTOR
M
WQ8 WQ9
WQ6 WQ7
WQ2 WQ3
WQ4 WQ5
7 ~ 11
WIC1 CXA1081M AF - AMP
EFM 27
LDON
19 FE
20 TE
45~48
6
12
30
15
18~25
WIC2 SSP CXA 1082 AQ FOCUS TRACKING
VCO ADJ
WSR2 (VR-SEMI)
XIC1 D/AC KDA0316 LN
8.46 72MHZ
76
80
52
53
5
50
29
13 ~ 28
WIC3 DSP CX1130D
WIC4 RAM HM6116-120
ZIC2,ZIC3
LOW PASS FILTER
ZIC2 ZIC3
LOW PASS FILTER
MQ2L
DE – EMPHASIS
MQ2R
DE – MPHASIS
ZQ3L
MUTE
ZQ3R
MUTE
L
R
DISPLAY
LCD 8087MJP
UIC 102 LCD DRIVER
9
8 ~ 16
20
1
21 ~ 24
2 3 4
62 ~ 41
UIC 101 M -COM LC 66508 -4358CD
SYSTEM CONTROL JACK FROM MAIN PCB
FUNCTION KEY
B+
B-
+5
POWER SUPPLY
POWER TRANS
AC POWER CORD

SCHMATIC DIAGRAM

1. MAIN SECTION

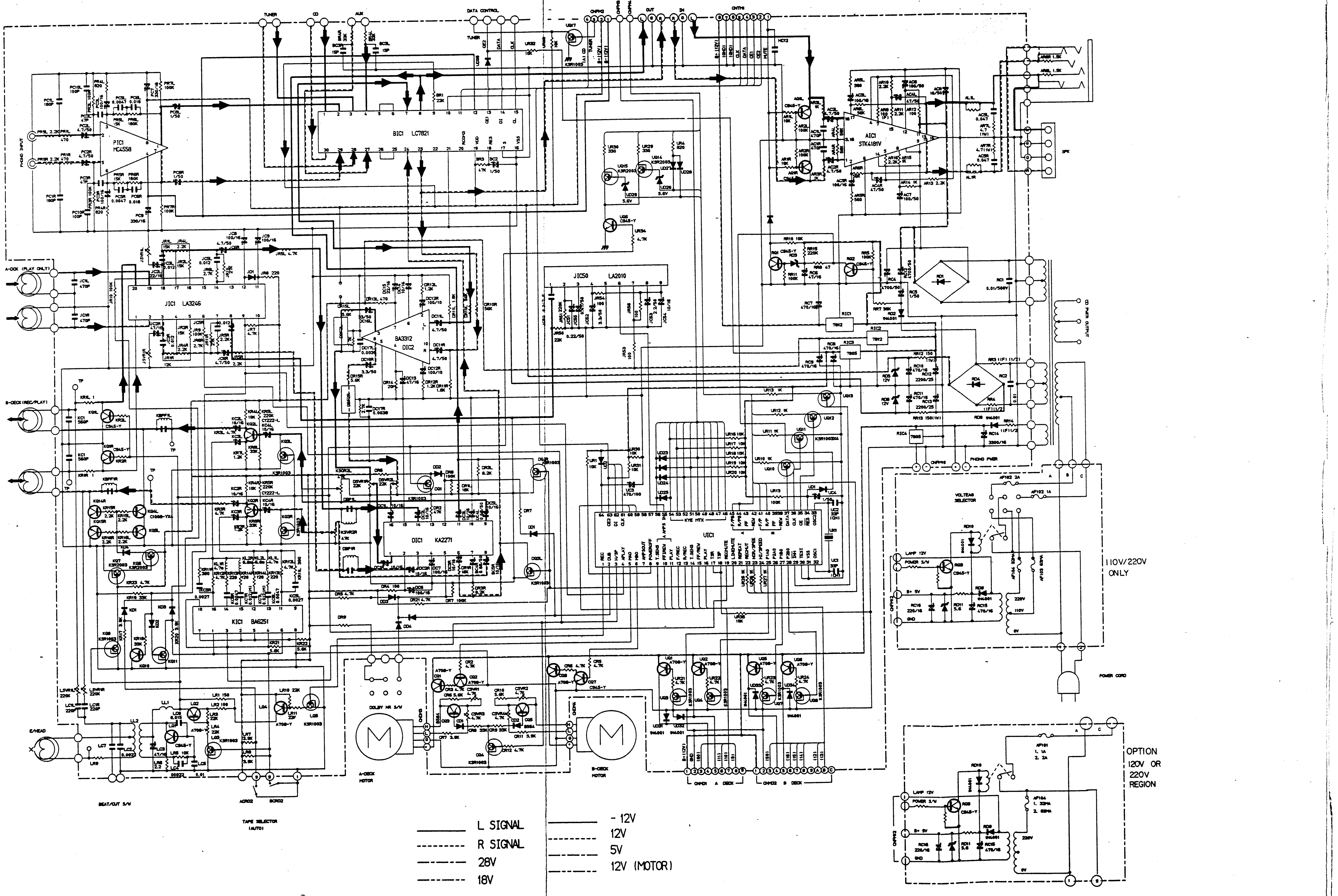

FM ANT
LOOP ANT
FRONT END PACK
VT4011
IIC1
TUNER OUTPUT
FM
AM
12V
5V
REMOCON BOX
QIC1 KA22234
QIC1 MC4558(1/2)
QIC2 MC4558(1/2)
HLCD1
uIC1
LC7230
-8302
HIC2 74HC375
SURROUND S/W
OUT
IN
CNPH1
CNPH2
CNFT1
CNFT2
CNPM10
TUNER LAMP
TIMER
SLEEP
STEREO
AUTO
MUTE
MEMORY

L CH

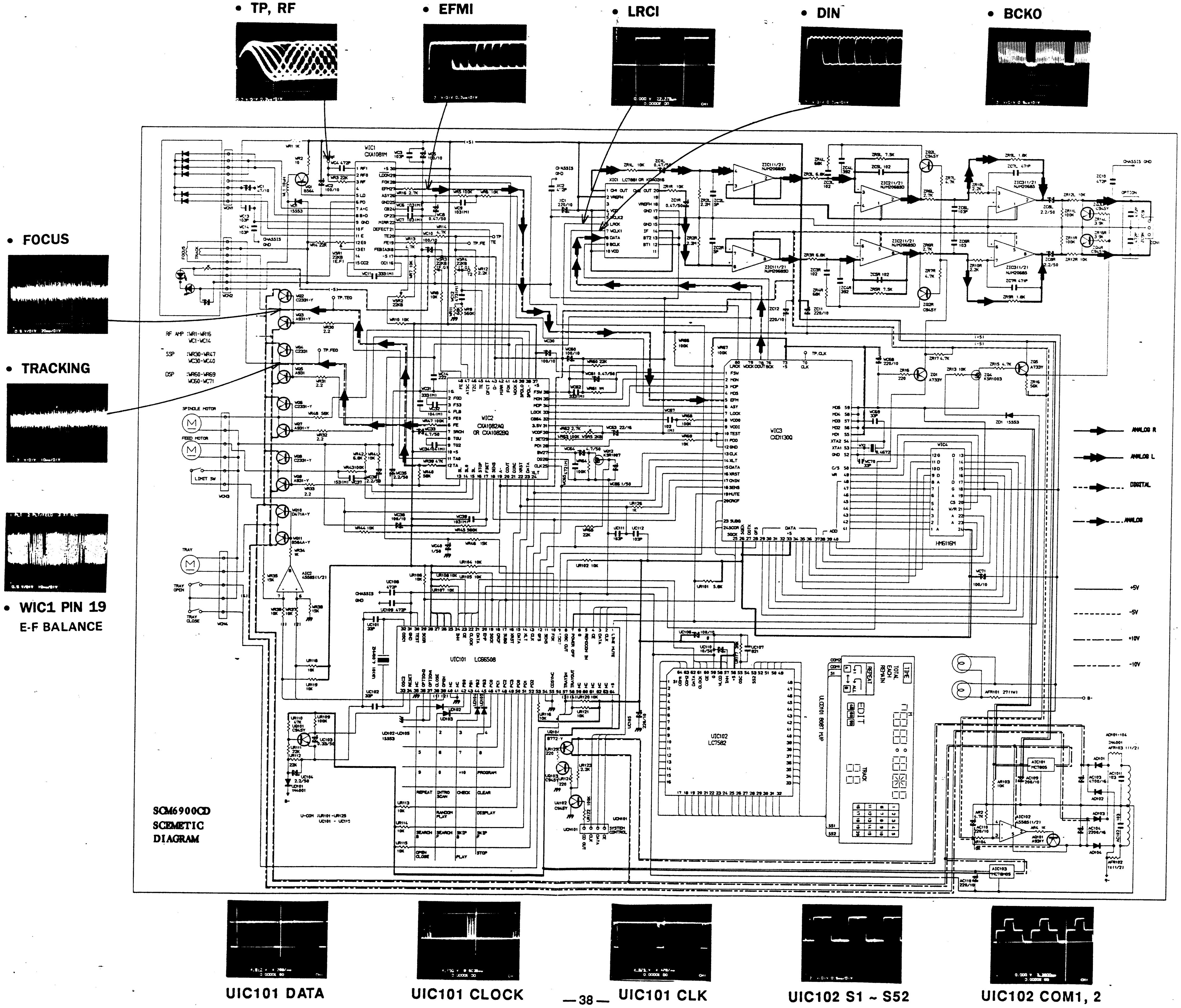
R CH

1. All resistance values are indicated in ohm and 1/8w unless otherwise noted.
(k = Killo ohm, M = Mega ohm)
2. All capacitance values are indicated in µF, pF.
3. Electrolytic capacitance values are indicated in working voltage.
4. This schematic diagram is subject to change for improvement without prior noted.

2. TAPE SECTION


TUNER
CD
AUX
DATA CONTROL
OUT
IN
PHONO INPUT
PIC1 MC4558
BIC1 LC7821
AIC1 STK4181V
SPK
A-DCK (PLAY ONLY)
JIC1 LA3246
JIC50 LA2010
BA3312 DIC2
B-DECK (REC/PLAY)
DIC1 KA2271
UIC1
KIC1 BA6251
E/HEAD
BEAT/CUT S/W
TAPE SELECTOR (AUTO)
DOLBY NR S/W
A-DECK MOTOR
B-DECK MOTOR
A DECK
B DECK
VOLTEAG SELECTOR
110V/220V ONLY
POWER CORD
OPTION 120V OR 220V REGION
L SIGNAL
R SIGNAL
28V
18V
-12V
12V
5V
12V (MOTOR)

3. CD SECTION


• TP, RF
• EFMI
• LRCI
• DIN
• BCKO
• FOCUS
• TRACKING
• WIC1 PIN 19
E-F BALANCE
UIC101 DATA
UIC101 CLOCK
UIC101 CLK
UIC102 S1 ~ S52
UIC102 COM1, 2
WIC1 CXA1081M
WIC2 CXA1082AQ OR CXA1082BQ
WIC3 CXD1130Q
WIC4 HM6116M
XIC1 LC7881
ZIC1(1/2) NJM2068DD
UIC101 LC66508
UIC102 LC7582
RF AMP :WR1-WR16 WC1-WC14
SSP :WR30-WR47 WC30-WC40
DSP :WR50-WR69 WC50-WC71
SPINDLE MOTOR
FEED MOTOR
LIMIT SW
TRAY
TRAY OPEN
TRAY CLOSE
CHASSIS GND
TP.FE
TP.TE
TP.FEO
TP.TEO
TP.CLK
SYSTEM CONTROL
REPEAT
INTRO SCAN
CHECK
CLEAR
RANDOM PLAY
DISPLAY
SEARCH
SKIP
OPEN CLOSE
PLAY
STOP
PROGRAM
EDIT
TRACK
TIME
TOTAL
EACH
REMAIN
ANALOG R
ANALOG L
DIGITAL
ANALOG
+5V
-5V
+10V
-10V
SCM6900CD
SCEMETIC
DIAGRAM

IC AND TR VOLTAGE CHART

KA2271(DIC1)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V	5.8	0.4	5.8	10.6	1.2	5.7	0	5.7	5.7	11.2	5.7	5.7	11.7	5.8	0.4	5.8

LC7230-8302(HIC1) ; CONDITION TUNER FUNCTION FM 98.1MHz

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V	2	0	0	9.3	3.7	3.7	5	0.5	9	0	5	0	0	0	0	0
PIN NO	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
V	0	0	0	0	0	5	0	5	5	5	5	5	5	5	5	0
PIN NO	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
V	0	0	0	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.9
PIN NO	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
V	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
PIN NO	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
V	2.4	0	5	4	9.7	2.4	2.4	5	5	2.4	0	0	1	1	0	2.4

IC7821 (BIC1)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
V	0	0	0	0	0	0	0	0	0	12.8	0	-12.7	0	0	0
PIN NO	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
V	0	0	12.8	12.8	0	0	0	0	0	0	0	0	0	0	0

BA3321N (DIC2)

PIN NO	1	2	3	4	5	6	7	8	9	10
V	0	0.6	5.6	0.1	0	11.7	11.8	5.5	0.6	0

BA6251 (KIC1)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V	9.2	9.2	0.1	0.1	9.2	9.2	9.2	0	0	0.1	0	0	0	0	0	0

LA2010 (JIC50)

PIN NO	1	2	3	4	5	6	7	8	9
V	2	0	2	10.4	0	0.6	11.2	1.5	10.4

LA3246 (JIC1)

PIN NO	1	2	3	4	5	6	7	8	9	10
V	0	0	0.6	4.1	4.1	0.1	0	4.1	0.1	0
PIN NO	11	12	13	14	15	16	17	18	19	20
V	9.8	9.8	9.0	0	5.8	4.0	4.0	0.6	0	0

STK-4181V (AIC1)

PIN NO	1	2	3	4	5	6	7	8	9
V	–0.2	–0.2	0	–31.3	–1.3	0	–34	–34.2	–34.2
PIN NO	10	11	12	13	14	15	16	17	18
V	0	34	32.5	0	–1.3	–0.1	–0.1	–0.1	–0.1

MC4558C (PIC1, QIC2)

PIN NO	1	2	3	4
V	0	0	0	–12.6
PIN NO	5	6	7	8
V	0	0	0	12.7

LA1851N (IIC1) ( ) : AM

PIN NO	1	2	3	4	5	6	7	8	9	10
V	2.4(2.3)	2,6(2.3)	9.7(9.6)	1.5(2.3)	0(0.7)	2.1(2.1)	9.7(9.7)	2.7(2.3)	2.1(2.1)	8.3(8.1)
PIN NO	11	12	13	14	15	16	17	18	19	20
V	8.3(8.2)	0.7(0.7)	8(7.7)	1.2(1.2)	1.2(1.2)	1.4(1.4)	0	9(0.5)	0	0(0.8)
PIN NO	21	22	23	24	25	26	27	28	29	30
V	0(0.8)	9.7(9.6)	9.3(9.2)	0	2.1(2.3)	0(0.7)	9.7(9.6)	2.3(2.2)	2.3(2.2)	1.1(0.8)

74HC 375 (HIC6)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V	5.0	5.1	0.5	8.7	0.5	5.0	5.0	0.5	5.0	5.1	0.5	8.7	4.5	0.5	5.0	5.1

KA22234 (QIC1)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12
V	10.5	10.6	11.2	11.3	10.7	10.7	11.3	11.3	10.7	10.7	11.3	11.3
PIN NO	13	14	15	16	17	18	19	20	21	22	23	24
V	10.8	10.8	11.4	11.4	7.6	4.39	4.4	7.6	4.9	4.9	11.9	0.1

LC66508-4517(UIC1)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14
V	5.1	0.1	9.2	0.1	0	0	5.1	5.1	4.5	4.5	4.5	4.5	4.5	4.5
PIN NO	15	16	17	18	19	20	21	22	23	24	25	26	27	28
V	4.5	4.5	0	0	4.4	8.8	0	10.1	10.1	10.1	0	0	0	0
PIN NO	29	30	31	32	33	34	35	36	37	38	39	40	41	42
V	0	0	0	1.8	1.9	5	0	0	4.5	0	0	9.8	9.8	0
PIN NO	43	44	45	46	47	48	49	50	51	52	53	54	55	56
V	0	10.1	10.1	10.1	4.5	4.5	4.5	4.9	5.1	5.1	5.1	5.1	0.6	4.5
PIN NO	57	58	59	60	61	62	63	64						
V	4.5	4.5	13.6	0	0	0	4.5	4.5						

CXA1081M (WIC1)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
V	0	0	2.4	0	4.5	0	0	0	0	12.8	0	0	0	0	–1
PIN NO	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
V	1.2	–5	0.4	0.5	0	–4.2	0	–3.5	0	0	2.5	0	0.2	4.9	5

CXA1082AQ (WIC2)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V	0	0	0	0	–0.6	0	0.6	0	0	5	0.5	0	0	0.6	0	0
PIN NO	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
V	–4	0.3	–5	0.2	5	5	4.3	4.8	4.7	0	3.2	3.2	2.2	2.3	3.5	2
2PIN NO	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
V	0.2	0.2	0.2	0.2	5	0	–0.5	2.5	3.8	0	–5	–4.2	0	0	0	0.6

CXK5816-M15L/HM6116LM (WIC4)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12
V	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	4	0.9	0.1
PIN NO	13	14	15	16	17	18	19	20	21	22	23	24
V	2.5	2.2	2.5	0	0	0	0	0	0	0	0	5

CXD1130Q (WIC3)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
V	0	0	0	0	2.3	2.5	0	2.4	2.3	0	3.2	0	4.7	4.8	4.3	4.9	0	4.5	5.5	0.4
PIN NO	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
V	1.3	4.5	0	0	5	5	2.5	0	2.6	2.7	2.6	2.2	5	2.3	0.9	4	2.3	2.5	2.5	2.5
PIN NO	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
V	2.5	2.5	2.5	2.5	2.5	0	0	0	0	0	2.5	0	2.3	2.4	5	0	5	0	0	1.3
PIN NO	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
V	1.3	0	3.7	1.9	1.9	1.9	5	2.5	2.5	2.4	4.9	5	5	5	2.5	2.5	2.5	0	2.5	2.5

LC66508-4358CD (UIC101)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V	5.4	5	5	5	0	0	5	5.4	5	4	0.3	0	4.7	4.8	4.2	5
PIN NO	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
V	0	0.4	5	0	4.3	0.2	1	4.3	5	5	5	5	0	0	0	2
PIN NO	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
V	2.3	5.5	0	0	0	0	0	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
PIN NO	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
V	4.9	5	5	5	5	0	0	5	0	5	5	5	5	5	5	5

LC7582 (UIC 102)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
V	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PIN NO	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
V	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.4	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PIN NO	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
V	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
PIN NO	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
V	2.2	2.2	2.2	2.2	2.2	2.2	3.7	4.4	4.4	4.4	0	1	0.2	4.3	2.2	2.2

KDA0316 (XIC1)

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
V	2.5	5	5	5	0	2.5	2.5	0	2.4	5.0	0	0	0	5	0	0	0	0	0	2.5

MC4558S (AIC102), NJM2068SD (ZIC1 ~ 3)

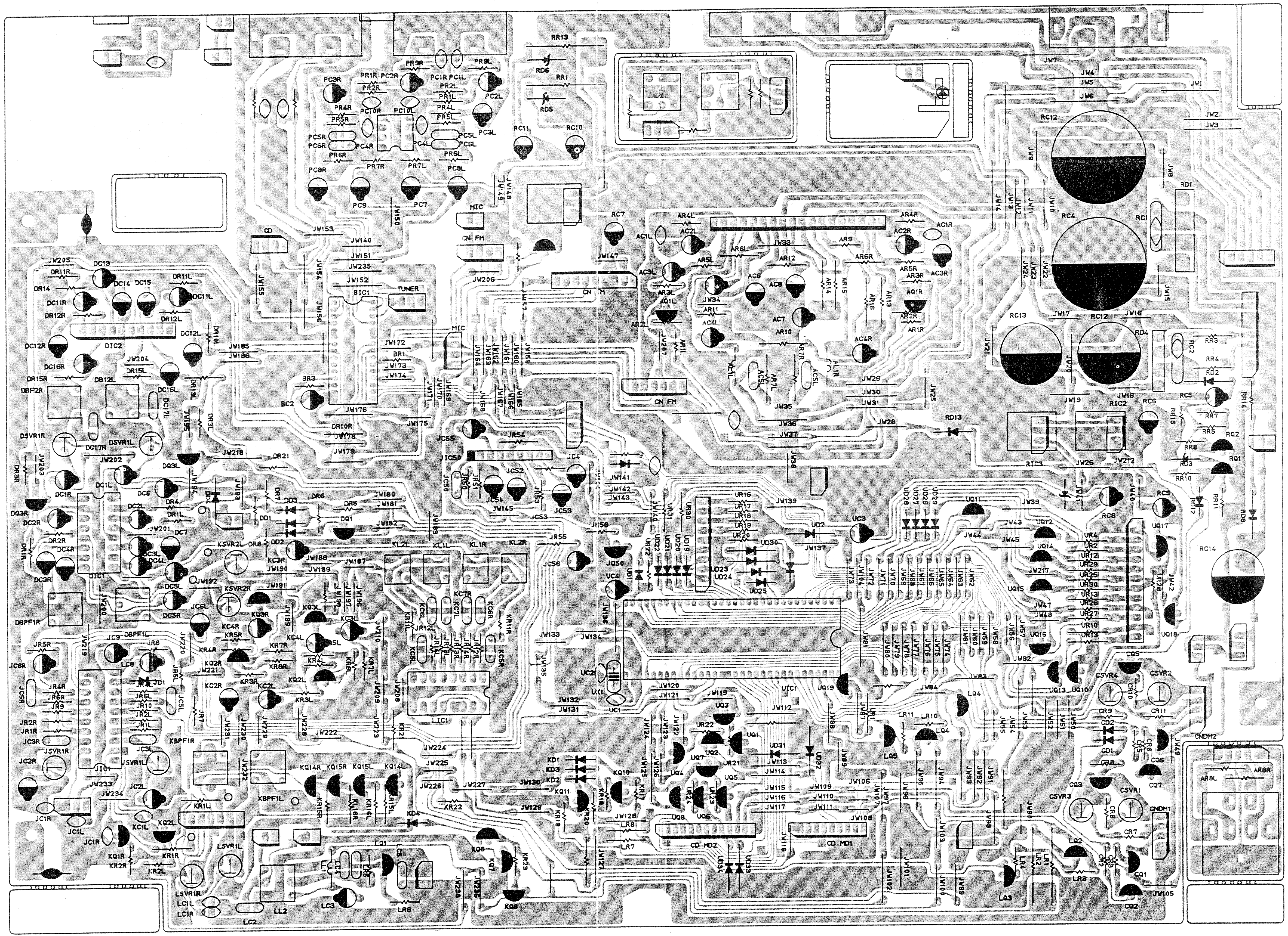
PIN NO	1	2	3	4	5	6	7	8	9
AIC102	12.7	12.2	0	0	–13	16	17	–0.4	12.7
ZIC 1	5	0	0	0	–5	0	0	0	5
ZIC 2	5	0	0	0	–5	0	0	0	5
ZIC 3	5	0	0	0	–5	0	0	0	5

MC7805 (AIC101, 103, RIC3, RIC4) MC7812 (RIC1, 2)

	AIC101, 103	RIC1, 2	RIC3	RIC4
IN	10.6	19.7	19.3	13.3
G	0	0	0	0
OUT	5.0	12.2	5.1	5.1

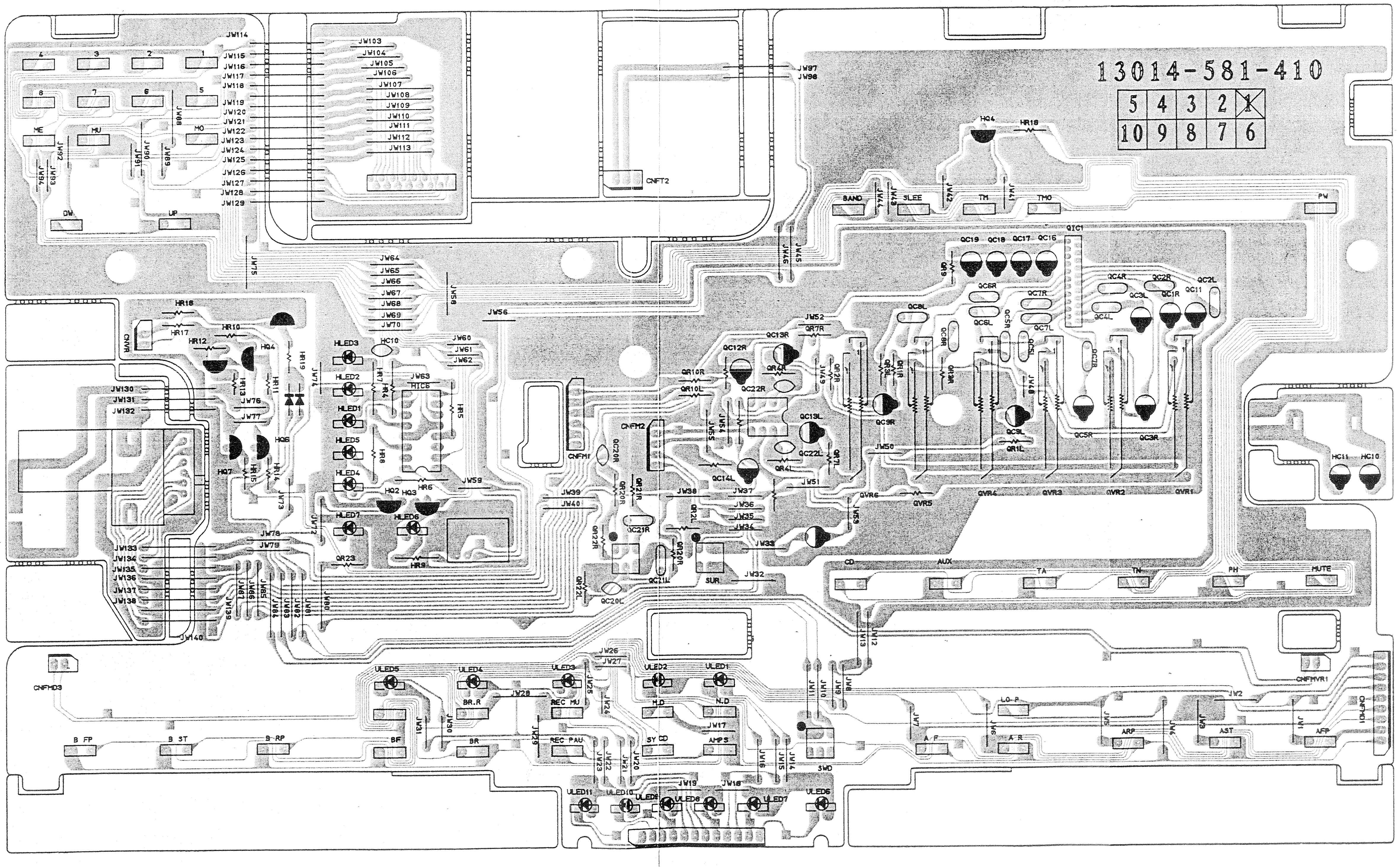
■ PCB PATTERN AND MARKING (PATTERN SIDE)

1. MAIN



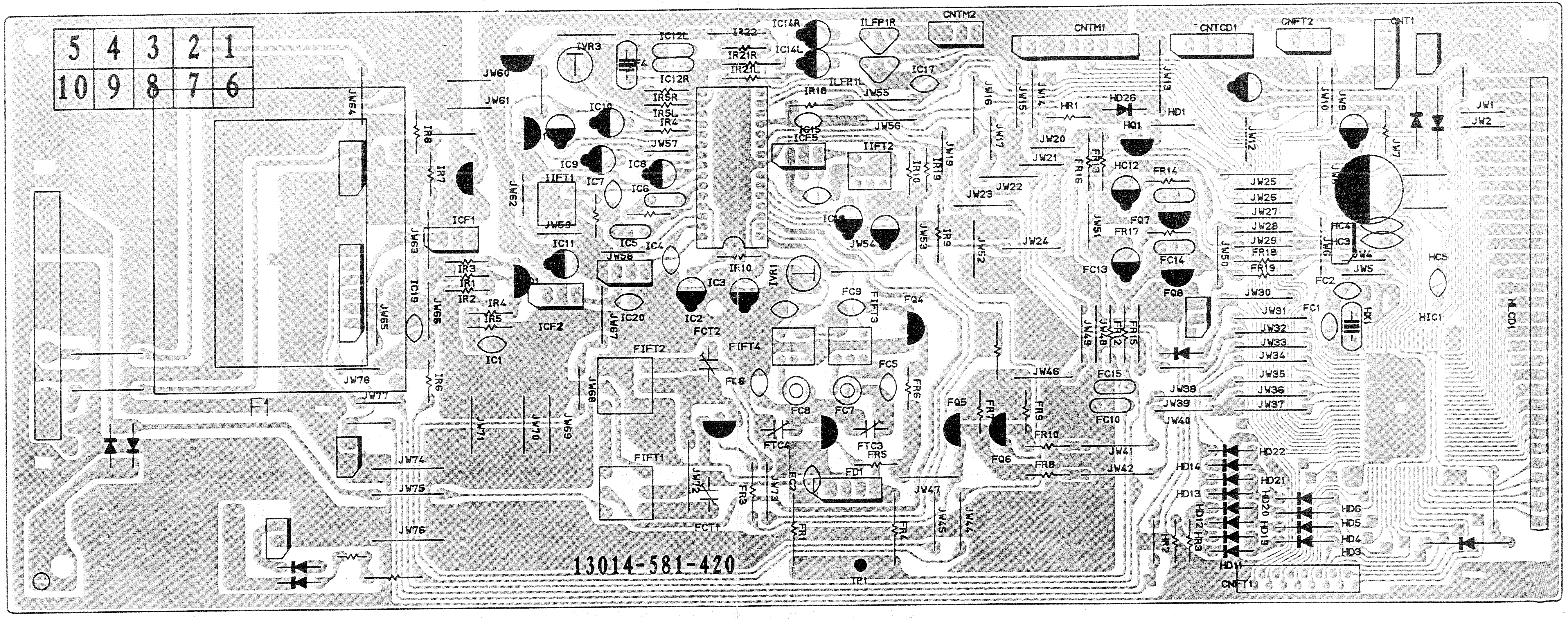
RR13
RD6
RR1
RD5
PR9R
PR9L
PC3R
PR1R
PC2R
PC1R
PC1L
PR2L
PC2L
PR4R
PR4L
PR5R
PC10R
PC10L
PR5L
PC3L
PC5R
PC6R
PC4R
PC4L
PC5L
PC6L
PR6R
PR6L
PR7R
PR7L
PC8R
PC8L
PC9
PC7
RC11
RC10
JW7
JW4
JW5
JW6
JW1
RC12
JW2
JW3
JW9
JW8
RD1
JW148
JW143
JW150
MIC
CN FM
CD
JW153
JW140
JW151
JW235
JW152
JW154
JW155
JW156
TUNER
BIC1
RC7
AR4L
AR4R
AC1R
AC1L
AC2L
AC2R
JW33
AR9
AR6L
AR12
AR6R
JW147
AR5L
AR5R
AR3R
AC3R
AC3L
AR3L
AQ1L
AC6
AC8
AR14
AR15
AR16
AR13
AQ1R
JW34
AR11
AR2R
AR1R
AR2L
AC4L
AC7
AR10
AC4R
JW207
AR1L
AC5L
AR7L
AR7R
JW29
JW30
JW31
JW35
JW36
JW37
JW28
JW25
JW14
JW12
JW13
JW11
JW10
RC4
RC1
JW24
JW23
JW22
JW15
RC13
JW17
JW16
RD4
JW21
JW20
RC2
RR3
RR4
RD2
RC5
RR14
JW19
JW18
RIC2
RC6
RR15
RR7
RR5
RQ2
RD13
RR8
RC3
RQ1
RIC3
JW26
JW212
RR10
RR12
RR11
RD9
RC9
JW40
RC8
RC14
JW205
DC13
DR11R
DR11L
DR14
DC14
DC15
DC11R
DC11L
DR12R
DR12L
DR10L
DC12L
DIC2
DC12R
JW185
JW186
JW204
DC16R
DR15L
DR15R
DB12L
DC16L
DBF2R
DC17L
DR13L
DR3L
BR3
BC2
JW172
BR1
JW173
JW174
JW176
DR10R
JW178
JW179
JW175
DSVR1R
DC17R
DSVR1L
JW203
JW202
DR3R
DQ3L
JW218
DR21
DC1L
DC1R
DQ3R
DC6
DC2L
DC2R
DR4
DR1L
DR7
DD3
DR6
DR5
DD1
DQ1
JW180
JW181
JW182
JW201
DC7
DR2R
DC4R
DR1R
DC3L
DC4L
DC3R
DIC1
DD2
DR8
KSVR2L
KC3R
JW190
JW188
JW189
JW187
KL2L
KL1L
KL1R
KL2R
JW192
DC5L
DC5R
JW200
KSVR2R
JW191
DBPF1R
JC6L
KQ3R
KQ3L
KC3L
KC4R
KR5R
KC4L
KC5L
JC9
DBPF1L
JI18
JW219
JW220
KR4R
KQ2R
KR7R
KR4L
KR6R
KR6L
JC6R
JR5R
LC8
JD1
JW221
KC2R
KR3R
KC2L
KQ2L
KR3L
JC5R
JR4R
JR6R
JR10
JR2L
JR1L
JC5L
JR2R
JR1R
JC3R
JSVR1R
JC3L
JC2R
JC1
JSVR1L
KBPF1R
JW231
JW230
JW229
JW228
JW222
JW223
JW209
JW208
LIC1
KR2
JW224
JW225
JW226
JW227
KQ14R
KQ15R
KQ15L
KQ14L
JW233
JW234
JC2L
JW232
KBPF1L
KR15R
KR16R
KR16L
KR15L
JC1R
JC1L
KR1L
KC1L
KQ2L
KD4
KR22
KQ1R
KR2R
KR1R
KR2L
LSVR1L
LQ1
LC5
LC4
LR5
KQ6
KQ7
KR23
KQ8
LSVR1R
LC1L
LC1R
LC3
LL2
LC2
LR6
JW238
JW236
JCS5
JIC50
JCS2
JC4
JCS1
JR54
JCS3
JW145
JW141
JW142
JW143
JI56
JR55
JCS6
JQ50
UC4
UC2
UX1
UC1
JW133
JW134
JW135
JW136
JW132
JW131
JW120
JW121
UQ3
UR22
UQ1
UQ2
UQ7
UR21
UQ4
UQ5
UQ8
UQ6
JW130
JW129
KD1
KD3
KD2
KQ11
KQ10
KR19
KR20
KR18
KR17
JW128
LR8
LR7
CD MD2
UD34
UD33
UR16
UR17
UR18
UR19
UR20
UD30
UD23
UD24
UD25
JW139
UD2
JW137
UC3
UD28
UD27
UD26
UD29
UQ11
JW39
JW43
UQ12
JW44
JW45
UQ14
UR4
UR2
UR12
UR29
UR25
UR30
UR13
UR26
UR27
UR10
UR13
JW217
UQ15
JW47
JW48
UQ16
UQ17
UQ18
JW82
JW83
JW84
UIC1
UQ19
JW112
JW113
JW114
JW115
JW116
JW117
UD31
UD32
JW109
JW110
JW111
JW108
JW106
CD MD1
LR11
LR10
LQ4
LQ5
UQ13
UQ10
CSVR4
CQ5
CSVR2
CR10
CR9
CD2
CD1
CR8
CR11
CQ6
CQ7
CQ3
CSVR1
CSVR3
CR6
CNDM1
CNDM2
CR7
LQ2
CR3
CQ1
CQ2
JW105
LR3
LQ3
LR4
LR2
JW99
JW100
JW101
JW102
JW103
JW104
AR8L
AR8R

2. FRONT

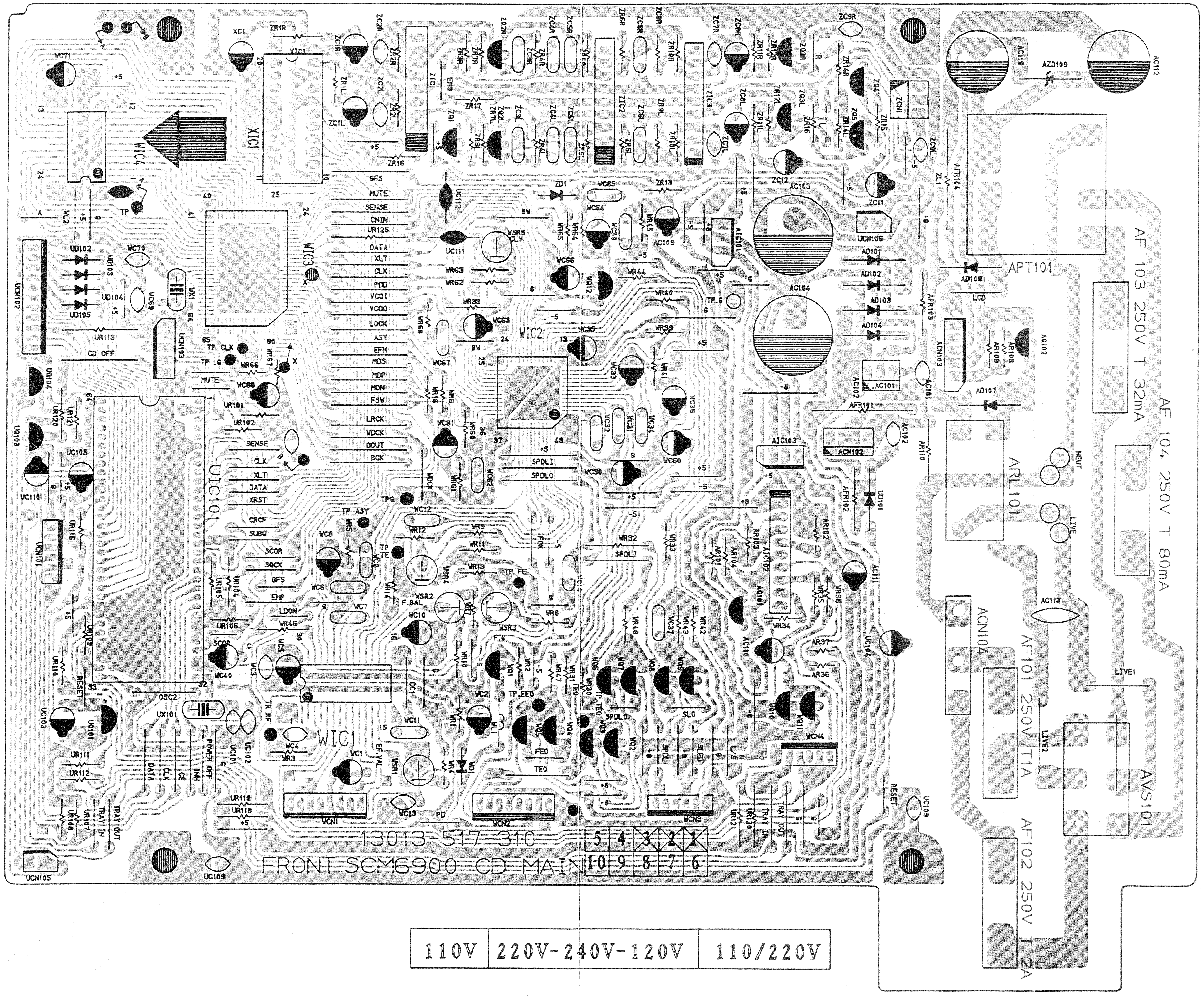


13014-581-410
5 4 3 2 1
10 9 8 7 6
JW114
JW115
JW116
JW117
JW118
JW119
JW120
JW121
JW122
JW123
JW124
JW125
JW126
JW127
JW128
JW129
JW103
JW104
JW105
JW106
JW107
JW108
JW109
JW110
JW111
JW112
JW113
4
3
2
1
8
7
6
5
ME
MU
MO
DW
UP
JW88
JW89
JW90
JW91
JW92
JW93
JW94
JW97
JW98
CNFT2
HQ4
HR18
BAND
SLEE
TM
TMO
PW
JW44
JW43
JW42
JW41
JW46
JW45
QIC1
QC19
QC18
QC17
QC16
QR9
JW64
JW65
JW66
JW67
JW68
JW69
JW70
JW58
JW56
JW75
HR16
HR10
HR17
HR12
HQ4
HR19
CNVR
JW74
HLED3
HC10
JW60
JW61
JW62
HLED2
HR7
HR4
JW63
HIC5
HR15
HLED1
HLED5
HR8
HLED4
HQ2
HQ3
HR6
JW59
HLED7
HLED6
HR9
QR23
JW130
JW131
JW132
JW76
JW77
HR13
HR11
HQ6
HQ7
HR15
HR14
JW73
JW72
JW78
JW79
JW133
JW134
JW135
JW136
JW137
JW138
JW139
JW140
JW87
JW86
JW85
JW84
JW83
JW82
JW81
JW80
CNFM1
CNFM2
QC20R
QR20R
QR21R
JW39
JW40
QR22R
QC21R
QR21L
QC21L
QR22L
QC20L
SUR
JW38
JW37
JW36
JW35
JW34
JW33
JW32
QC14L
JW51
QR4L
QC22L
QC13L
JW50
QC9R
QC22R
QR4R
QC12R
QC13R
JW52
QR7R
QR10R
QR10L
JW49
JW54
JW55
JW53
QVR6
QVR5
QVR4
QVR3
QVR2
QVR1
QC8L
QC6R
QC5L
QC5R
QC7R
QC7L
QC8R
QC4R
QC2R
QC3L
QC1R
QC11
QC2L
QC4L
QC3R
QC5R
QC9L
QR1L
JW48
HC11
HC10
CD
AUX
TA
TN
PH
MUTE
JW13
JW12
CNFMVR1
CNFMD3
JW26
JW27
ULED5
ULED4
ULED3
ULED2
ULED1
BR.R
JW28
REC MU
M.D
N.D
JW25
JW24
JW11
JW10
JW9
JW17
LO.P
JW2
JW7
JW6
JW5
JW4
JW3
JW1
CNFMD1
B FP
B ST
B RP
BF
BR
JW31
JW30
JW29
REC PAU
SY CD
AMPS
JW23
JW22
JW21
JW20
JW16
JW15
JW14
SWD
A.P
A.R
ARP
AST
AFP
ULED11
ULED10
ULED9
ULED8
ULED7
ULED6
JW19
JW18

3. TUNER

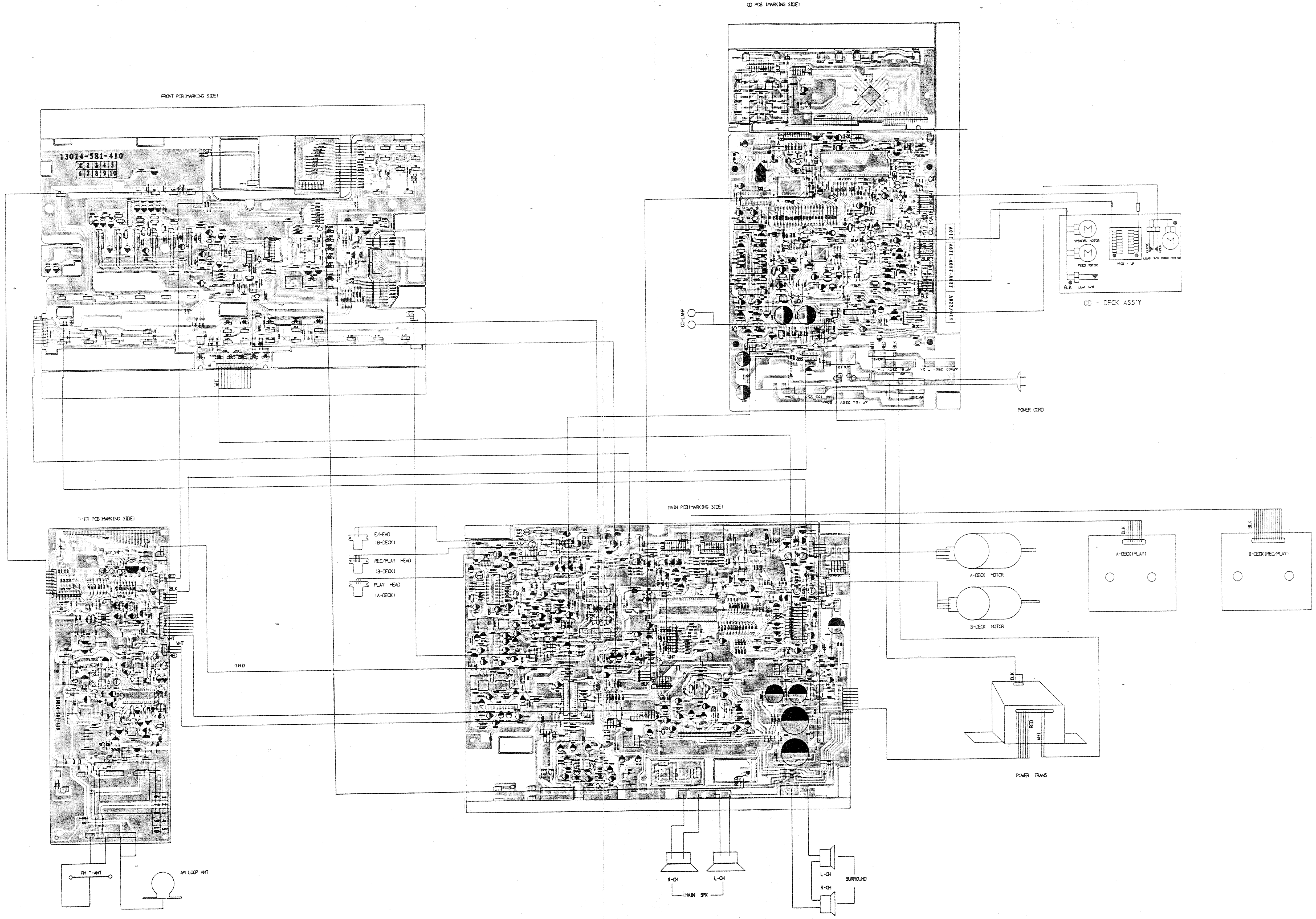

5 4 3 2 1
10 9 8 7 6
F1
13014-581-420
IVR3
IC12L
IC12R
IR22
IR21R
IR21L
IC14R
IC14L
ILFP1R
ILFP1L
CNTM2
CNTM1
CNTCD1
CNFT2
CNT1
IC17
IR18
JW55
JW56
ICF5
IC15
IIFT2
HR1
HD26
HD1
HQ1
HC12
FR14
FQ7
FR17
FC14
FC13
FQ8
JW60
JW61
JW62
JW64
JW65
JW63
JW66
JW67
JW68
JW69
JW70
JW71
JW72
JW73
JW74
JW75
JW76
JW77
JW78
IC10
IC9
IC8
IC7
IC6
IC5
IC4
IC3
IC2
IC1
IC11
IC19
IC20
IIFT1
JW59
JW58
JW57
JW54
JW53
JW52
JW51
JW50
JW49
JW48
JW47
JW46
JW45
JW44
JW43
JW42
JW41
JW40
JW39
JW38
JW37
JW36
JW35
JW34
JW33
JW32
JW31
JW30
JW29
JW28
JW27
JW26
JW25
JW24
JW23
JW22
JW21
JW20
JW19
JW17
JW16
JW15
JW14
JW13
JW12
JW10
JW9
JW8
JW7
JW6
JW5
JW4
JW2
JW1
IR1
IR2
IR3
IR4
IR5
IR6
IR7
IR8
IR9
IR10
IR19
IR4
IR5L
IR5R
ICF1
ICF2
IVR1
FCT1
FCT2
FIFT1
FIFT2
FIFT3
FIFT4
FC2
FC5
FC6
FC7
FC8
FC9
FC10
FC15
FQ4
FQ5
FQ6
FR1
FR3
FR4
FR5
FR6
FR7
FR8
FR9
FR10
FR12
FR13
FR15
FR16
FR18
FR19
FTC3
FTC4
FD1
TP1
HC3
HC4
HC5
HX1
FC1
HIC1
HLCD1
HD3
HD4
HD5
HD6
HD11
HD12
HD13
HD14
HD19
HD20
HD21
HD22
HR2
HR3
CNFT1

4. CD


13013-517-310
FRONT SCM6900 CD MAIN
5 4 3 2 1
10 9 8 7 6
AF 103 250V T 32mA
AF 104 250V T 80mA
AF101 250V T1A
AF102 250V T 2A
AVS101
ARL101
APT101
ACN104
XIC1
WIC1
WIC2
WIC3
WIC4
UIC101
WCN1
WCN2
WCN3
UCN101
UCN102
UCN105

110V	220V-240V-120V	110/220V

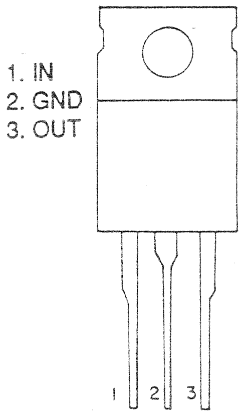
WIRING DIAGRAM


FRONT PCB(MARKING SIDE)
13014-581-410
1 2 3 4 5
6 7 8 9 10
CD PCB (MARKING SIDE)
110/220V
220V-240V-120V
110V
CD MAIN
BLK
RED
WHT
CD-LAMP
SPINDEL MOTOR
FEED MOTOR
PICK - UP
CLOSE
OPEN
LEAF S/W DOOR MOTOR
BLK
LEAF S/W
CD - DECK ASS'Y
AF101 250V T1A
AF102 250V T 2A
AF103 250V T 32mA
AF104 250V T 80mA
POWER CORD
TUNER PCB(MARKING SIDE)
RED
BLK
WHT
WHT
RED
GND
E/HEAD
(B-DECK)
REC/PLAY HEAD
(B-DECK)
PLAY HEAD
(A-DECK)
MAIN PCB(MARKING SIDE)
A-DECK MOTOR
B-DECK MOTOR
BLK
A-DECK(PLAY)
BLK
B-DECK(REC/PLAY)
BLK
RED
WHT
POWER TRANS
FM T-ANT
AM LOOP ANT
R-CH
L-CH
MAIN SPK
L-CH
R-CH
SURROUND

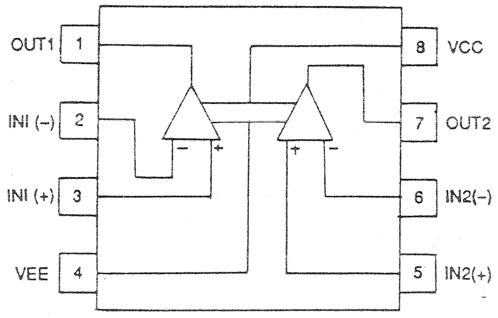
IC AND TR INTERNAL DIAGRAM

1. MAIN SECTION (TUNER, DECK, ETC.)

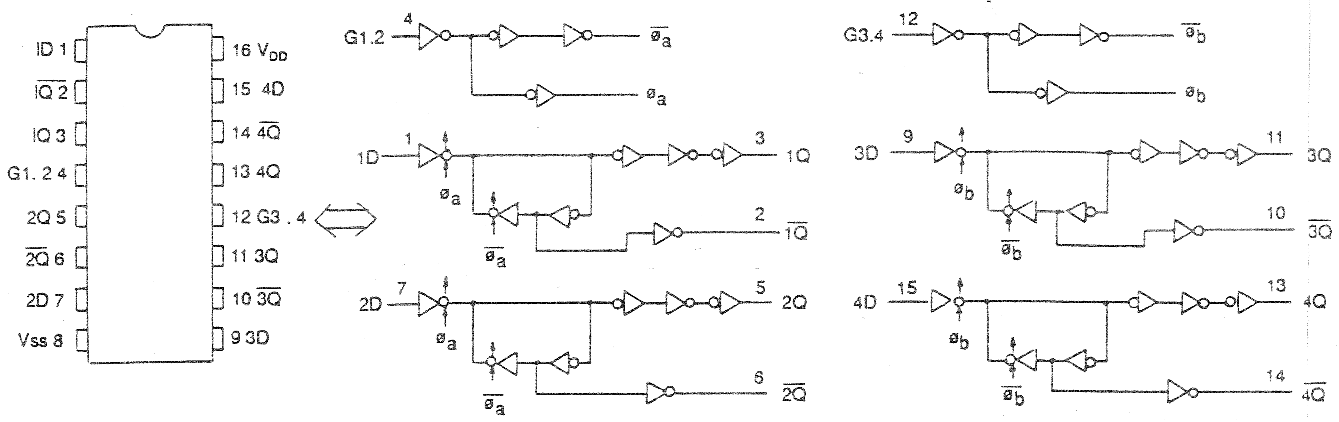
- MC7812C (REGULATOR) : RIC1, 2


1. IN
2. GND
3. OUT
1
2
3

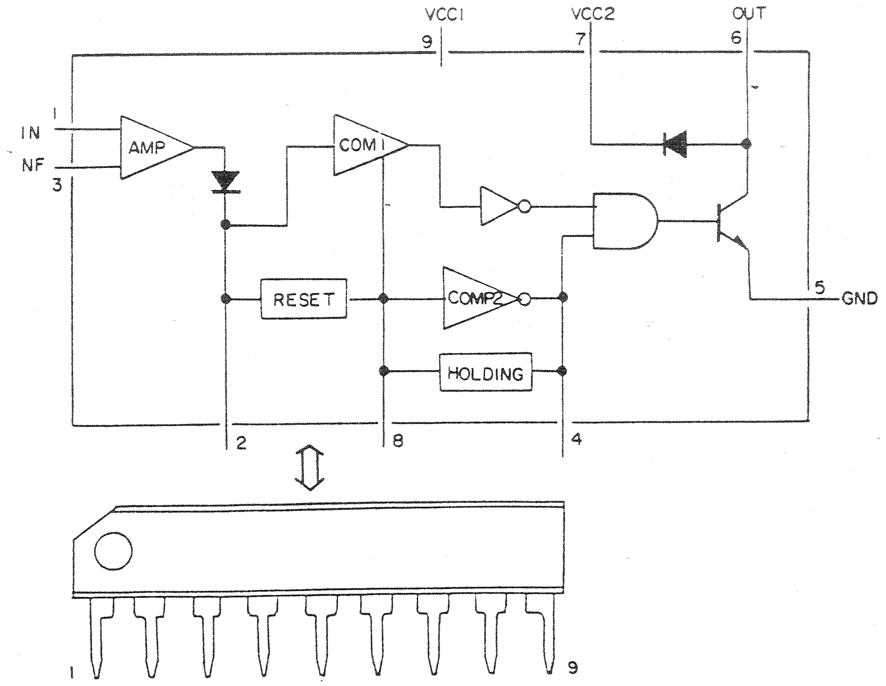
- MC4558C (OP AMP) : PIC1


OUT1
INI (–)
INI (+)
VEE
VCC
OUT2
IN2(–)
IN2(+)
1
2
3
4
5
6
7
8

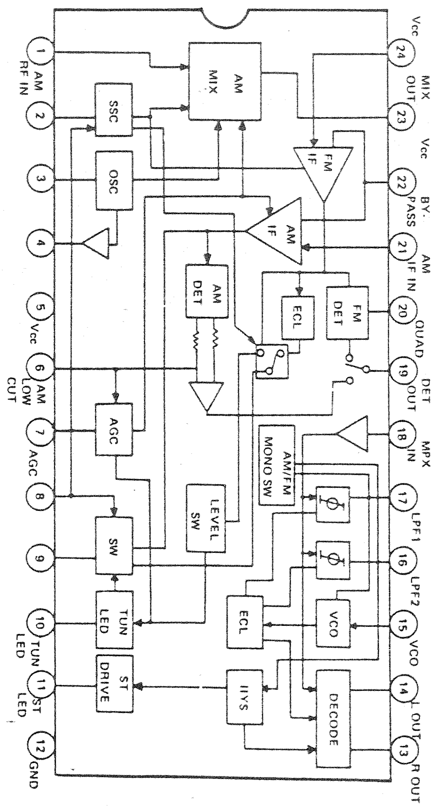
- LC74HC 375/TC74HC375 (FUNCTION LED S/W) : HIC6


ID 1
IQ 2
IQ 3
G1. 2 4
2Q 5
2Q 6
2D 7
Vss 8
16 VDD
15 4D
14 4Q
13 4Q
12 G3 . 4
11 3Q
10 3Q
9 3D
G1.2
G3.4
1D
1Q
1Q
2D
2Q
2Q
3D
3Q
3Q
4D
4Q
4Q
øa
øb

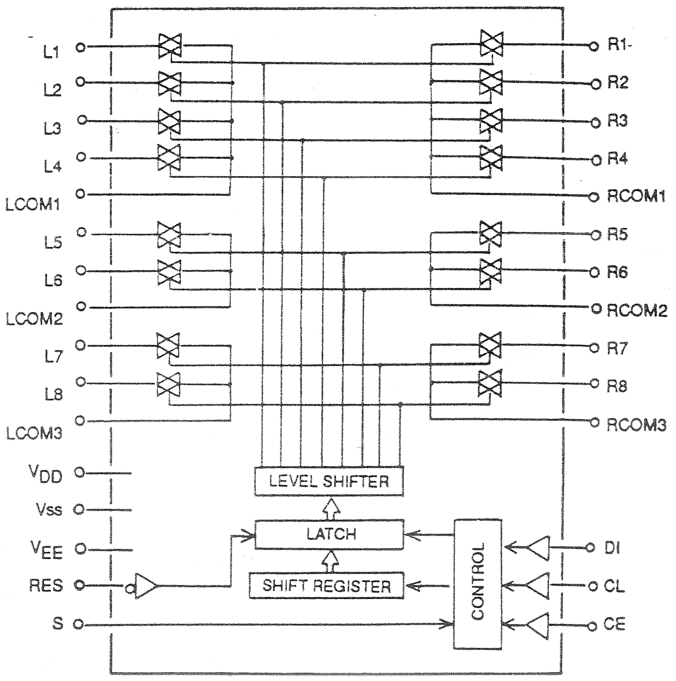
- LA 2010 (AMPS SENSOR) : JIC50


VCC1
VCC2
OUT
IN
NF
AMP
COM1
RESET
COMP2
HOLDING
GND
1
2
3
4
5
6
7
8
9

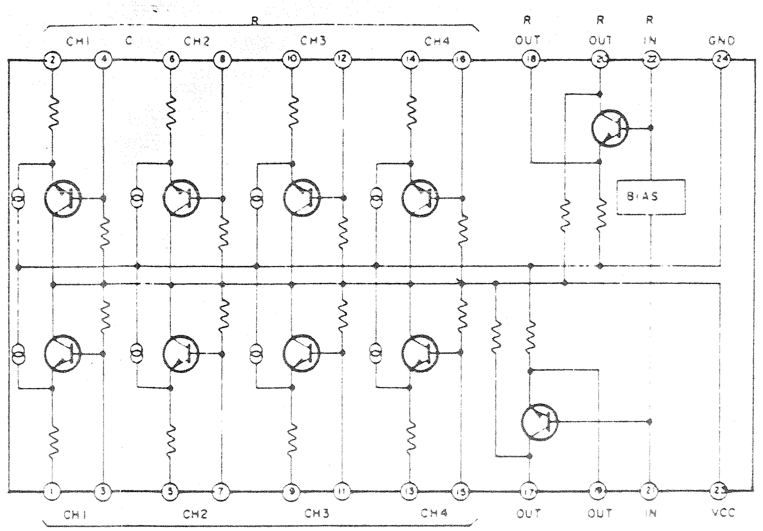
- LA 1851N (FM, AM, IF IC : IIC1)


AM RF IN
AM MIX
SSC
OSC
AM DET
AGC
SW
TUN LED
ST DRIVE
FM IF
AM IF
ECL
FM DET
LEVEL SW
AM/FM MONO SW
VCO
HYS
DECODE
Vcc
AM LOW CUT
AGC
TUN LED
ST LED
GND
MIX OUT
BY-PASS
AM IF IN
QUAD
DET OUT
MPX IN
LPF1
LPF2
VCO
L OUT
R OUT

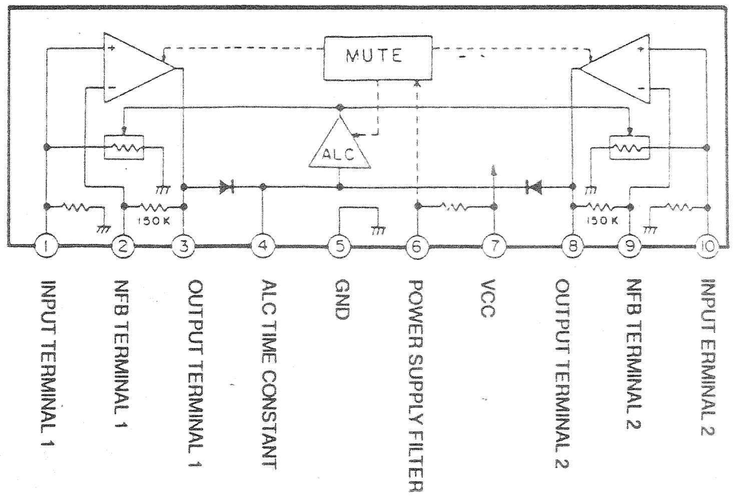
- LC7821 (FUNCTION S/W) : BIC1


L1
L2
L3
L4
LCOM1
L5
L6
LCOM2
L7
L8
LCOM3
VDD
Vss
VEE
RES
S
R1
R2
R3
R4
RCOM1
R5
R6
RCOM2
R7
R8
RCOM3
DI
CL
CE
LEVEL SHIFTER
LATCH
SHIFT REGISTER
CONTROL

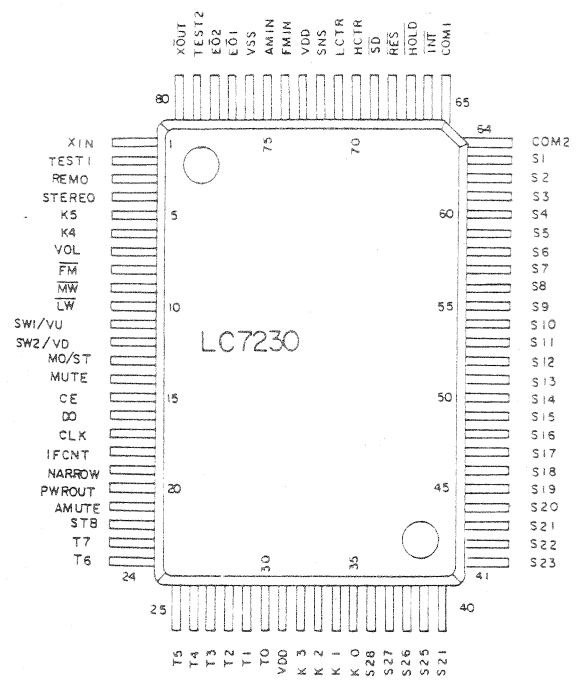
- KA22234 (GRAPHIC EQ IC) : QIC1


R
CH1
CH2
CH3
CH4
OUT
IN
GND
BIAS
L
VCC

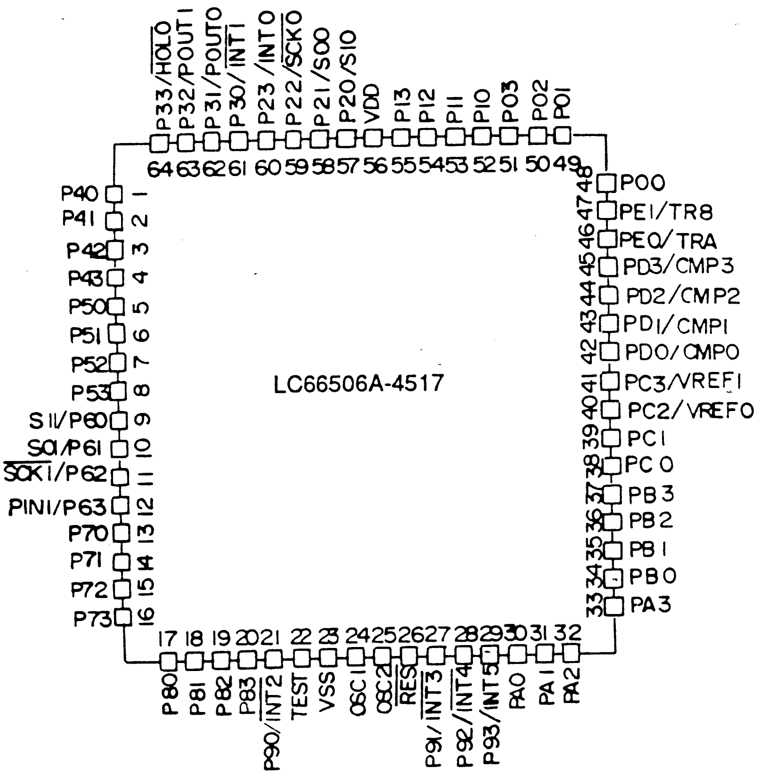
- BA3312N (REC ALC AMP) : DIC2


MUTE
ALC
150K
INPUT TERMINAL 1
NFB TERMINAL 1
OUTPUT TERMINAL 1
ALC TIME CONSTANT
GND
POWER SUPPLY FILTER
VCC
OUTPUT TERMINAL 2
NFB TERMINAL 2
INPUT ERMINAL 2

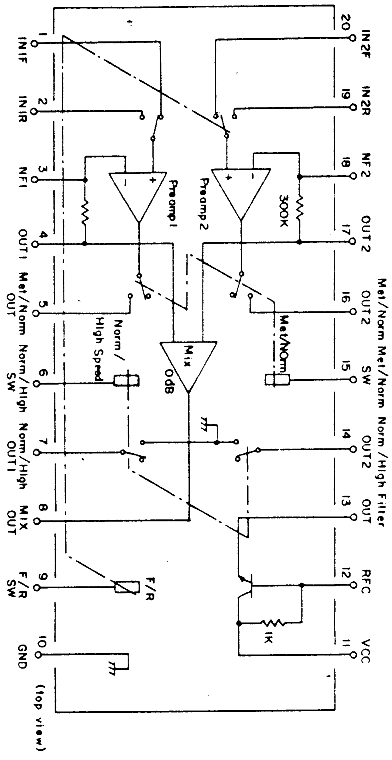
- LC7230 (PLL IC) : HIC1


LC7230
XIN
TEST1
REMO
STEREO
K5
K4
VOL
FM
MW
LW
SW1/VU
SW2/VD
MO/ST
MUTE
CE
DO
CLK
IFCNT
NARROW
PWROUT
AMUTE
STB
T7
T6
COM2
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
S22
S23
T5
T4
T3
T2
T1
T0
VDD
K3
K2
K1
K0
S28
S27
S26
S25
S21
XOUT
TEST2
EO2
EO1
VSS
AMIN
FMIN
VDD
SNS
LCTR
HCTR
SD
RES
HOLD
INT
COM1

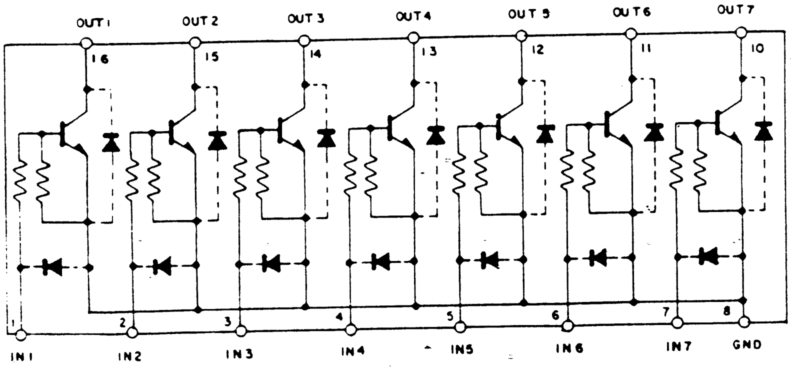
- LC66508-4517 (DECK MICOM) : UIC1


LC66506A-4517
P33/HOLD
P32/POUT1
P31/POUT0
P30/INT1
P23/INT0
P22/SCK0
P21/SO0
P20/SI0
VDD
P13
P12
P11
P10
P03
P02
P01
P40
P41
P42
P43
P50
P51
P52
P53
SI1/P60
SO1/P61
SCK1/P62
PIN1/P63
P70
P71
P72
P73
P00
PE1/TR8
PE0/TRA
PD3/CMP3
PD2/CMP2
PD1/CMP1
PD0/CMP0
PC3/VREF1
PC2/VREF0
PC1
PC0
PB3
PB2
PB1
PB0
PA3
P80
P81
P82
P83
P90/INT2
TEST
VSS
OSC1
OSC2
RES
P91/INT3
P92/INT4
P93/INT5
PA0
PA1
PA2

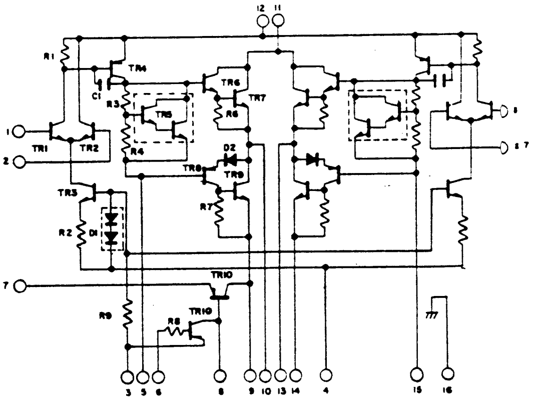
- LA3246 (PLAY AMP) : JIC1


IN1F
IN1R
NF1
OUT1
Met/Norm OUT
Norm/High SW
Norm/High OUT1
MIX OUT
F/R SW
GND
(top view)
IN2F
IN2R
NF2
OUT2
Met/Norm OUT2
Met/Norm SW
Norm/High OUT2
Norm/High Filter OUT
RFC
VCC
Preamp1
Preamp2
300K
Norm/High Speed
Mix 0dB
Met/Norm
F/R
1K

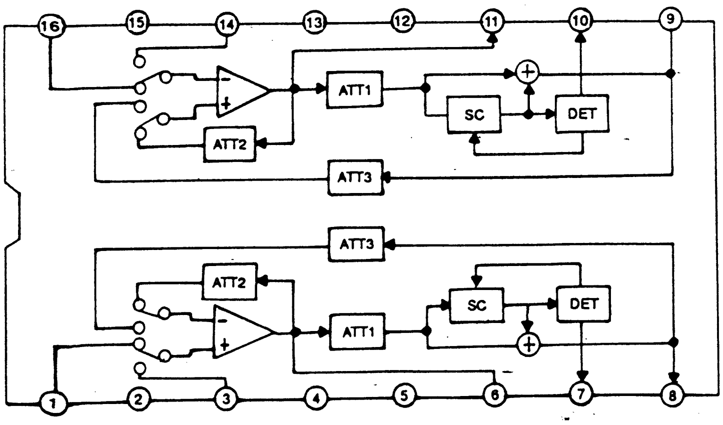
- LB1213 (REC AMP) : KIC 1

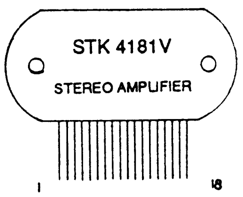

OUT1
OUT2
OUT3
OUT4
OUT5
OUT6
OUT7
IN1
IN2
IN3
IN4
IN5
IN6
IN7
GND

- STK4181-V (POWER IC) : AIC 1


R1
TR4
C1
R3
TR5
R6
TR6
TR7
TR1
TR2
R4
D2
TR8
TR9
R7
TR3
R2
D1
TR10
R9
R8
TR10

- KA2271 (DOLBY IC) : DIC1

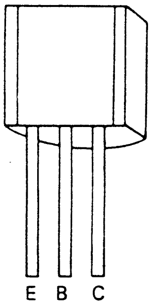

ATT1
ATT2
ATT3
SC
DET


STK 4181V
STEREO AMPLIFIER
1
18

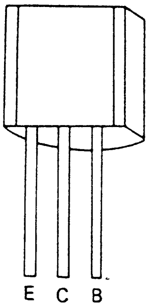
2. CD SECTION

- TR AND REGULATOR IC

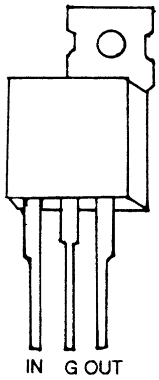
KSB 546
KSC 945
KSA 733



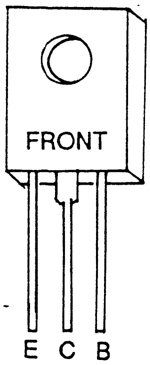
KSC 2331
KSA 931
KSR 2003
KSR 1003
KSR 1007



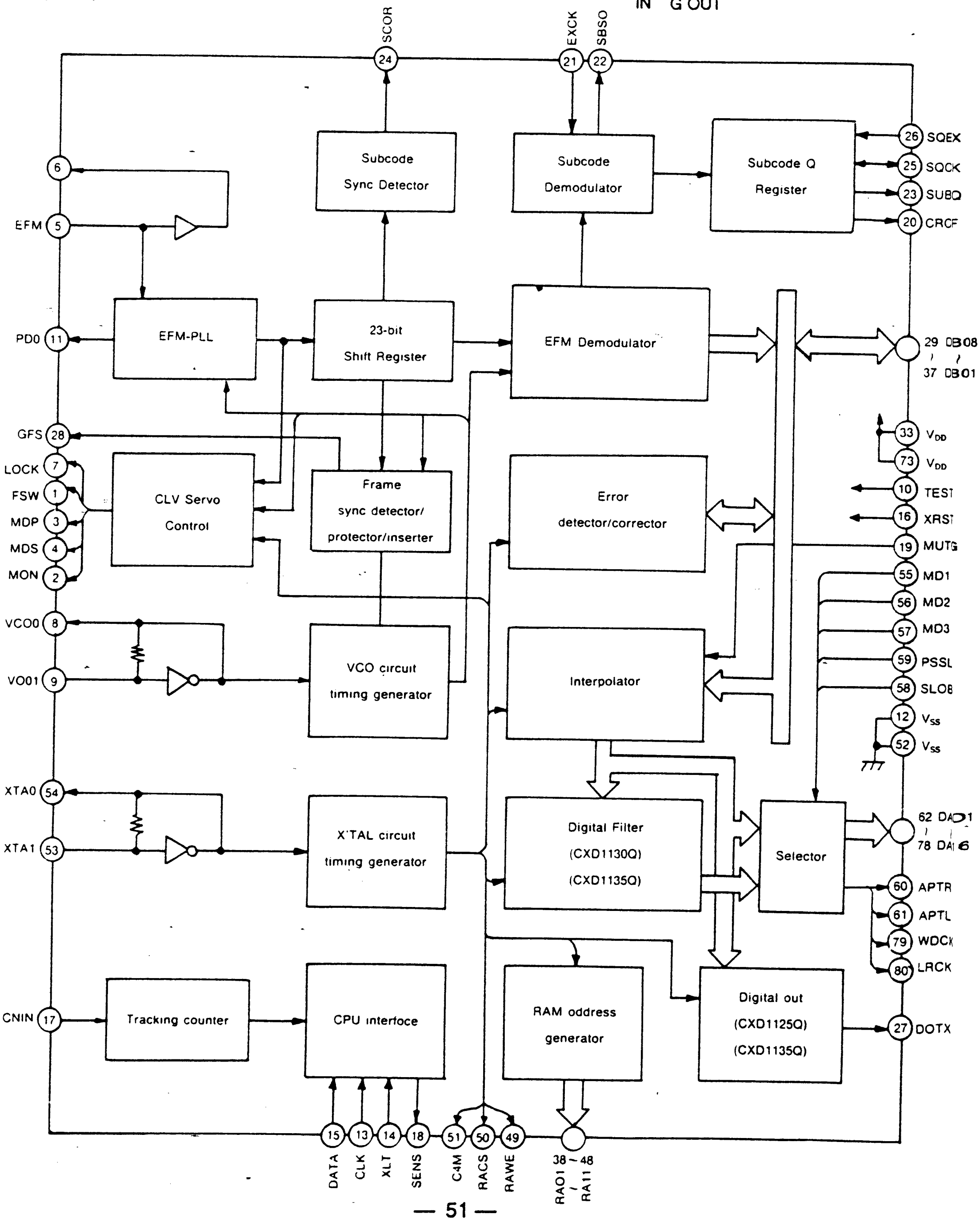
MC7805C



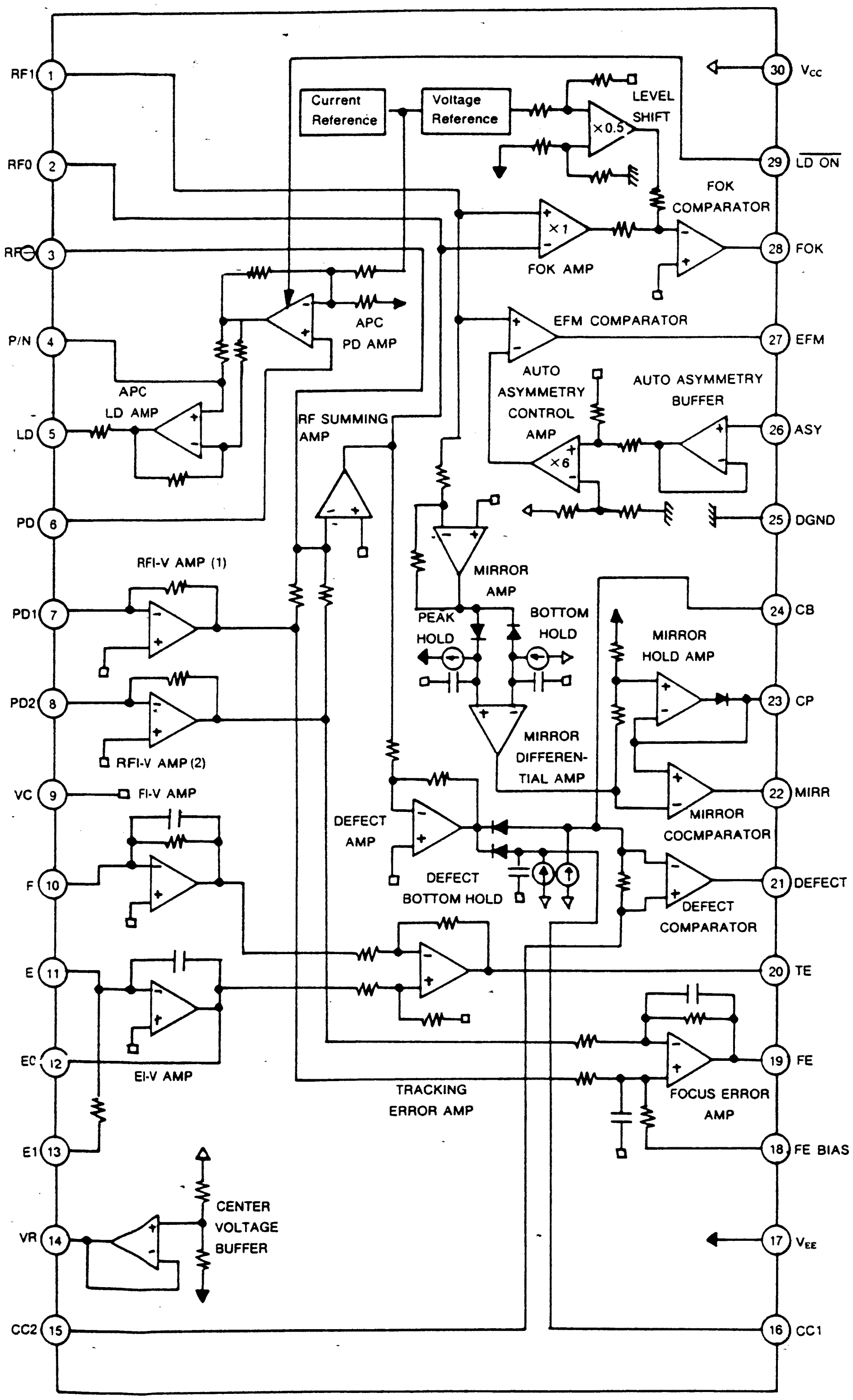
KSB772



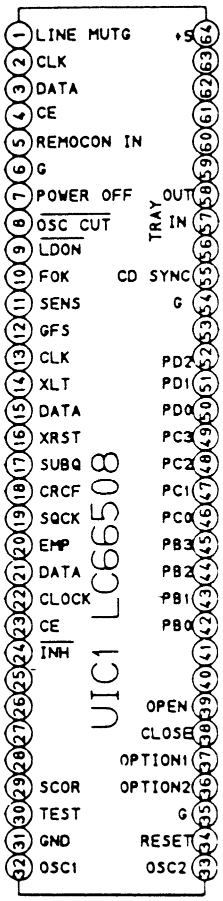
- CXD1130Q (DSP) : WIC3


SCOR 24
EXCK 21
SBSO 22
Subcode Sync Detector
Subcode Demodulator
Subcode Q Register
26 SQEX
25 SQCK
23 SUBQ
20 CRCF
6
EFM 5
PDO 11
EFM-PLL
23-bit Shift Register
EFM Demodulator
29 DB08
37 DB01
GFS 28
LOCK 7
FSW 1
MDP 3
MDS 4
MON 2
CLV Servo Control
Frame sync detector/ protector/inserter
Error detector/corrector
33 VDD
73 VDD
10 TEST
16 XRST
19 MUTG
55 MD1
56 MD2
57 MD3
59 PSSL
58 SLOB
12 VSS
52 VSS
VCO0 8
VO01 9
VCO circuit timing generator
Interpolator
XTA0 54
XTA1 53
X'TAL circuit timing generator
Digital Filter (CXD1130Q) (CXD1135Q)
Selector
62 DA01
78 DA16
60 APTR
61 APTL
79 WDCK
80 LRCK
CNIN 17
Tracking counter
CPU interface
RAM address generator
Digital out (CXD1125Q) (CXD1135Q)
27 DOTX
15 DATA
13 CLK
14 XLT
18 SENS
51 C4M
50 RACS
49 RAWE
38 ~ 48 RA01 ~ RA11

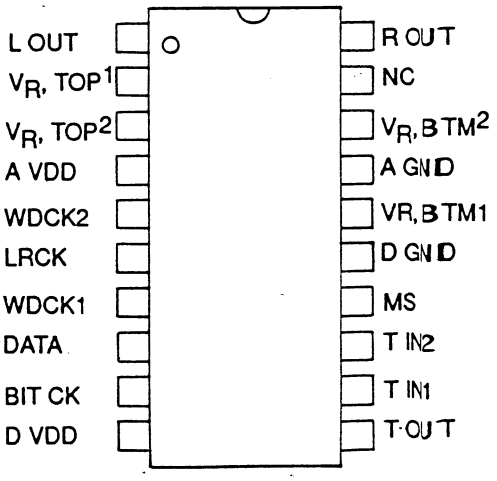
- CXA 1081M (RF AMP) : WIC1


RF1 1
RFO 2
RF 3
P/N 4
LD 5
PD 6
PD1 7
PD2 8
VC 9
F 10
E 11
EC 12
E1 13
VR 14
CC2 15
CC1 16
VEE 17
FE BIAS 18
FE 19
TE 20
DEFECT 21
MIRR 22
CP 23
CB 24
DGND 25
ASY 26
EFM 27
FOK 28
LD ON 29
Vcc 30
Current Reference
Voltage Reference
×0.5
LEVEL SHIFT
×1
FOK AMP
FOK COMPARATOR
APC PD AMP
APC LD AMP
EFM COMPARATOR
AUTO ASYMMETRY CONTROL AMP
×6
AUTO ASYMMETRY BUFFER
RF SUMMING AMP
MIRROR AMP
PEAK HOLD
BOTTOM HOLD
MIRROR HOLD AMP
MIRROR DIFFEREN-TIAL AMP
MIRROR COCMPARATOR
RFI-V AMP (1)
RFI-V AMP (2)
FI-V AMP
DEFECT AMP
DEFECT BOTTOM HOLD
DEFECT COMPARATOR
EI-V AMP
TRACKING ERROR AMP
FOCUS ERROR AMP
CENTER VOLTAGE BUFFER

- LC66508-4358CD (MICOM) : UIC101

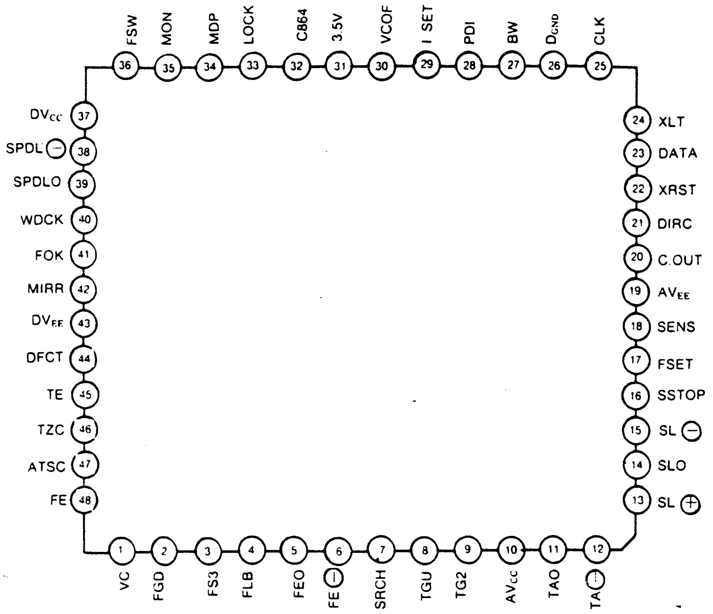

1 LINE MUTG
2 CLK
3 DATA
4 CE
5 REMOCON IN
6 G
7 POWER OFF
8 OSC CUT
9 LDON
10 FOK
11 SENS
12 GFS
13 CLK
14 XLT
15 DATA
16 XRST
17 SUBQ
18 CRCF
19 SQCK
20 EMP
21 DATA
22 CLOCK
23 CE
24 INH
25
26
27
28
29 SCOR
30 TEST
31 GND
32 OSC1
33 OSC2
34 RESET
35 G
36 OPTION2
37 OPTION1
38 CLOSE
39 OPEN
40
41
42 PB0
43 PB1
44 PB2
45 PB3
46 PC0
47 PC1
48 PC2
49 PC3
50 PD0
51 PD1
52 PD2
53
54 G
55 CD SYNC
56
57 IN
58 OUT
TRAY
59
60
61
62
63
64 +5
UIC1 LC66508

- KDA0316LN
(D/A CONVERTOR) : XIC1

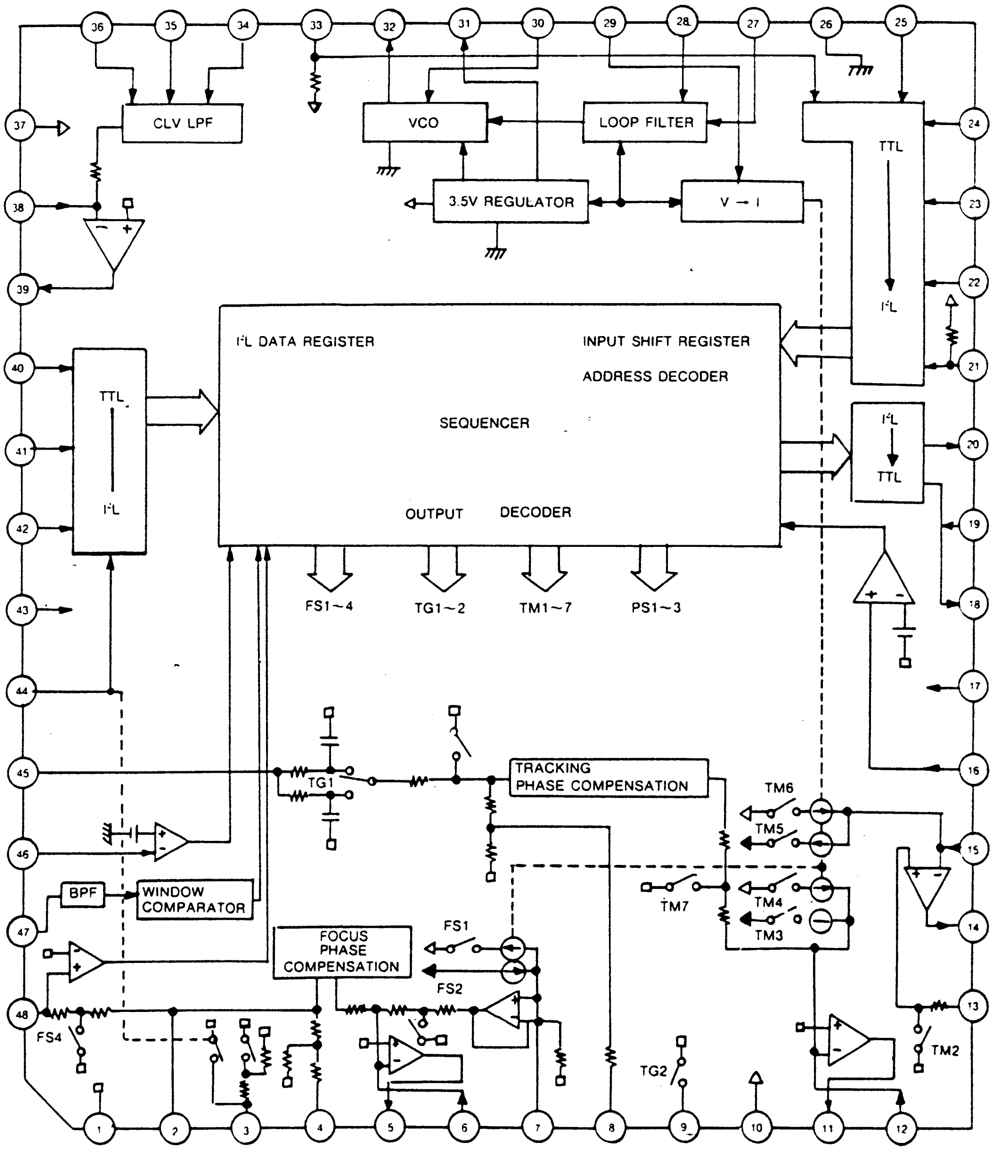

L OUT
VR, TOP1
VR, TOP2
A VDD
WDCK2
LRCK
WDCK1
DATA
BIT CK
D VDD
R OUT
NC
VR, BTM2
A GND
VR, BTM1
D GND
MS
T IN2
T IN1
T OUT

* D/A CONVERTOR : DIGITAL ANALOG CONVERTOR

- **CXA1082AQ (SSP) : WIC2**



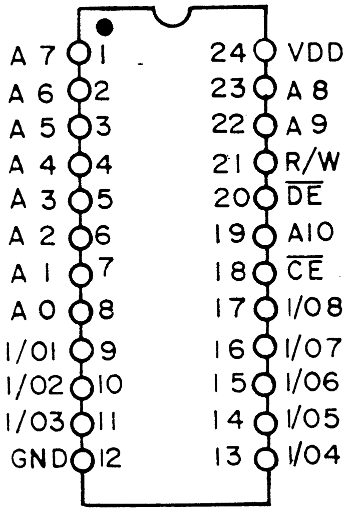
FSW 36
MON 35
MDP 34
LOCK 33
C864 32
3.5V 31
VCOF 30
I SET 29
PDI 28
BW 27
D_{GND} 26
CLK 25
DV_{CC} 37
SPDL ⊖ 38
SPDLO 39
WDCK 40
FOK 41
MIRR 42
DV_{EE} 43
DFCT 44
TE 45
TZC 46
ATSC 47
FE 48
24 XLT
23 DATA
22 XRST
21 DIRC
20 C.OUT
19 AV_{EE}
18 SENS
17 FSET
16 SSTOP
15 SL ⊖
14 SLO
13 SL ⊕
1 VC
2 FGD
3 FS3
4 FLB
5 FEO
6 FE ⊖
7 SRCH
8 TGU
9 TG2
10 AV_{CC}
11 TAO
12 TA ⊖



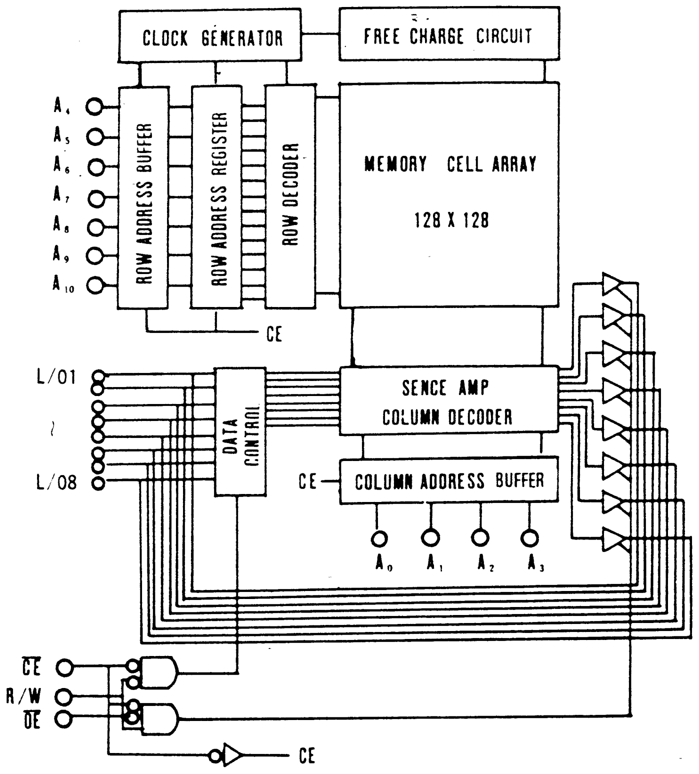
36
35
34
33
32
31
30
29
28
27
26
25
CLV LPF
VCO
LOOP FILTER
3.5V REGULATOR
V → I
TTL
I^2L
37
38
39
40
41
42
43
44
45
46
47
48
24
23
22
21
20
19
18
17
16
15
14
13
I^2L DATA REGISTER
INPUT SHIFT REGISTER
ADDRESS DECODER
SEQUENCER
OUTPUT
DECODER
TTL
I^2L
I^2L
TTL
FS1~4
TG1~2
TM1~7
PS1~3
TG1
TRACKING PHASE COMPENSATION
TM6
TM5
TM7
TM4
TM3
BPF
WINDOW COMPARATOR
FOCUS PHASE COMPENSATION
FS1
FS2
FS4
TG2
TM2
1
2
3
4
5
6
7
8
9
10
11
12

* SSP : SERVO SIGNAL PROCESSOR

- HM6116-120 (S-RAM) : WIC4


A 7 1
A 6 2
A 5 3
A 4 4
A 3 5
A 2 6
A 1 7
A 0 8
I/01 9
I/02 10
I/03 11
GND 12
24 VDD
23 A 8
22 A 9
21 R/W
20 DE
19 A10
18 CE
17 I/08
16 I/07
15 I/06
14 I/05
13 I/04

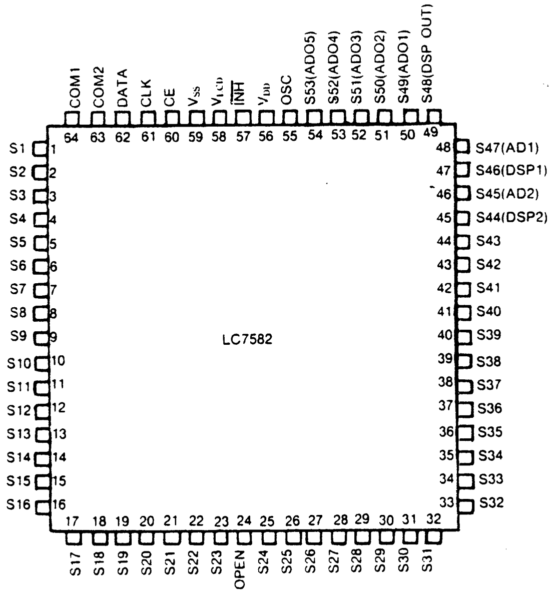
BLOCK DIAGRAM


CLOCK GENERATOR
FREE CHARGE CIRCUIT
A4
A5
A6
A7
A8
A9
A10
ROW ADDRESS BUFFER
ROW ADDRESS REGISTER
ROW DECODER
MEMORY CELL ARRAY
128 X 128
CE
L/01
L/08
DATA CONTROL
SENCE AMP
COLUMN DECODER
CE
COLUMN ADDRESS BUFFER
A0
A1
A2
A3
CE
R/W
OE
CE

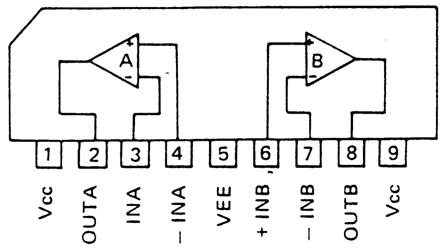
PIN DESCRIPTION

A0～A10	ADRESS INPUT
R/W	READ WRITE INPUT
OE	OUTPUT ENABLE INPUT
CE	CHIP ENABLE INPUT
I/O_1～I/O_8	DATA INPUT/OUTPUT
V_{DD}/GND	POWER SOURCE

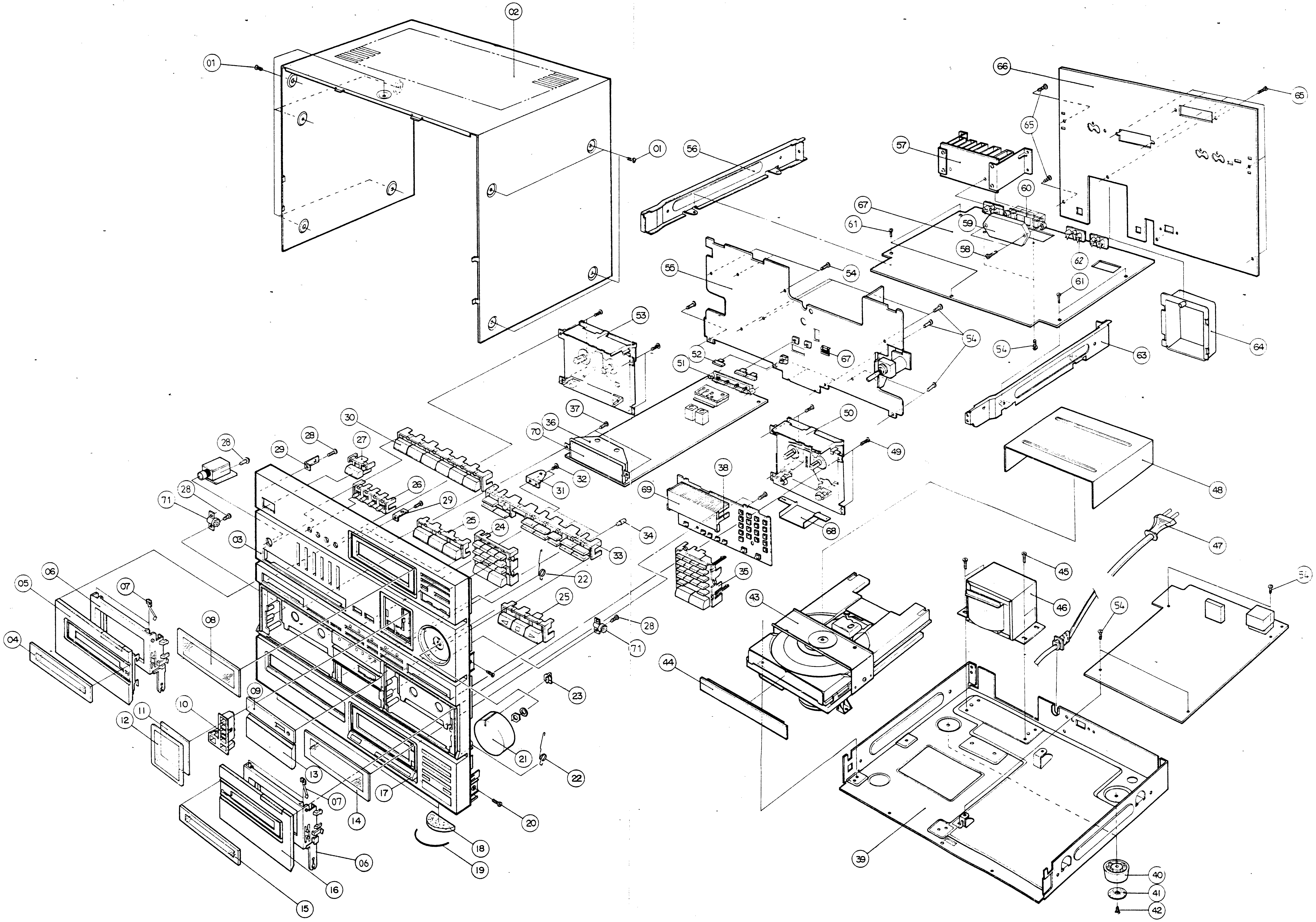
- LC7582 (LED DRIVER) : UIC102


COM1 64
COM2 63
DATA 62
CLK 61
CE 60
VSS 59
VLCD 58
INH 57
VDD 56
OSC 55
S53(ADO5) 54
S52(ADO4) 53
S51(ADO3) 52
S50(ADO2) 51
S49(ADO1) 50
S48(DSP OUT) 49
S1 1
S2 2
S3 3
S4 4
S5 5
S6 6
S7 7
S8 8
S9 9
S10 10
S11 11
S12 12
S13 13
S14 14
S15 15
S16 16
48 S47(AD1)
47 S46(DSP1)
46 S45(AD2)
45 S44(DSP2)
44 S43
43 S42
42 S41
41 S40
40 S39
39 S38
38 S37
37 S36
36 S35
35 S34
34 S33
33 S32
17 S17
18 S18
19 S19
20 S20
21 S21
22 S22
23 S23
24 OPEN
25 S24
26 S25
27 S26
28 S27
29 S28
30 S29
31 S30
32 S31
LC7582

- MC4558S/NJM2068CD (OP-AMP) : AIC102/ZIC1-3

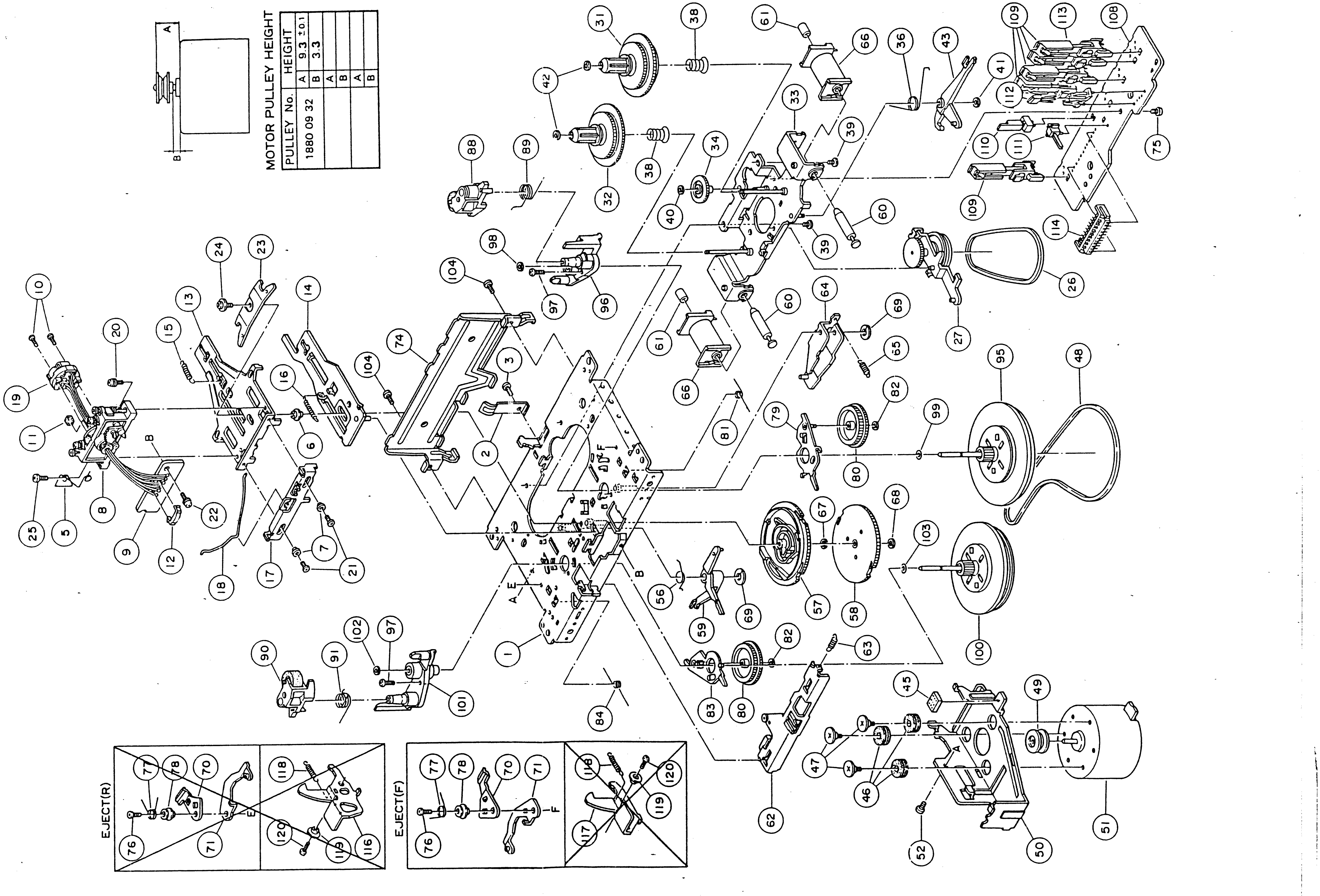

A
B
1 Vcc
2 OUTA
3 INA
4 – INA
5 VEE
6 + INB
7 – INB
8 OUTB
9 Vcc

EXPLODED VIEW


02
01
66
65
65
01
56
57
60
67
59
61
58
62
55
54
61
53
54
54
52
67
63
64
51
37
36
70
30
28
29
27
50
49
28
32
31
38
26
69
28
71
29
48
25
24
34
03
22
33
68
06
05
07
47
35
45
54
25
43
46
54
08
04
28
71
44
23
09
10
11
12
21
22
13
07
17
14
20
18
06
16
19
15
39
40
41
42

DECK EXPLODED VIEW

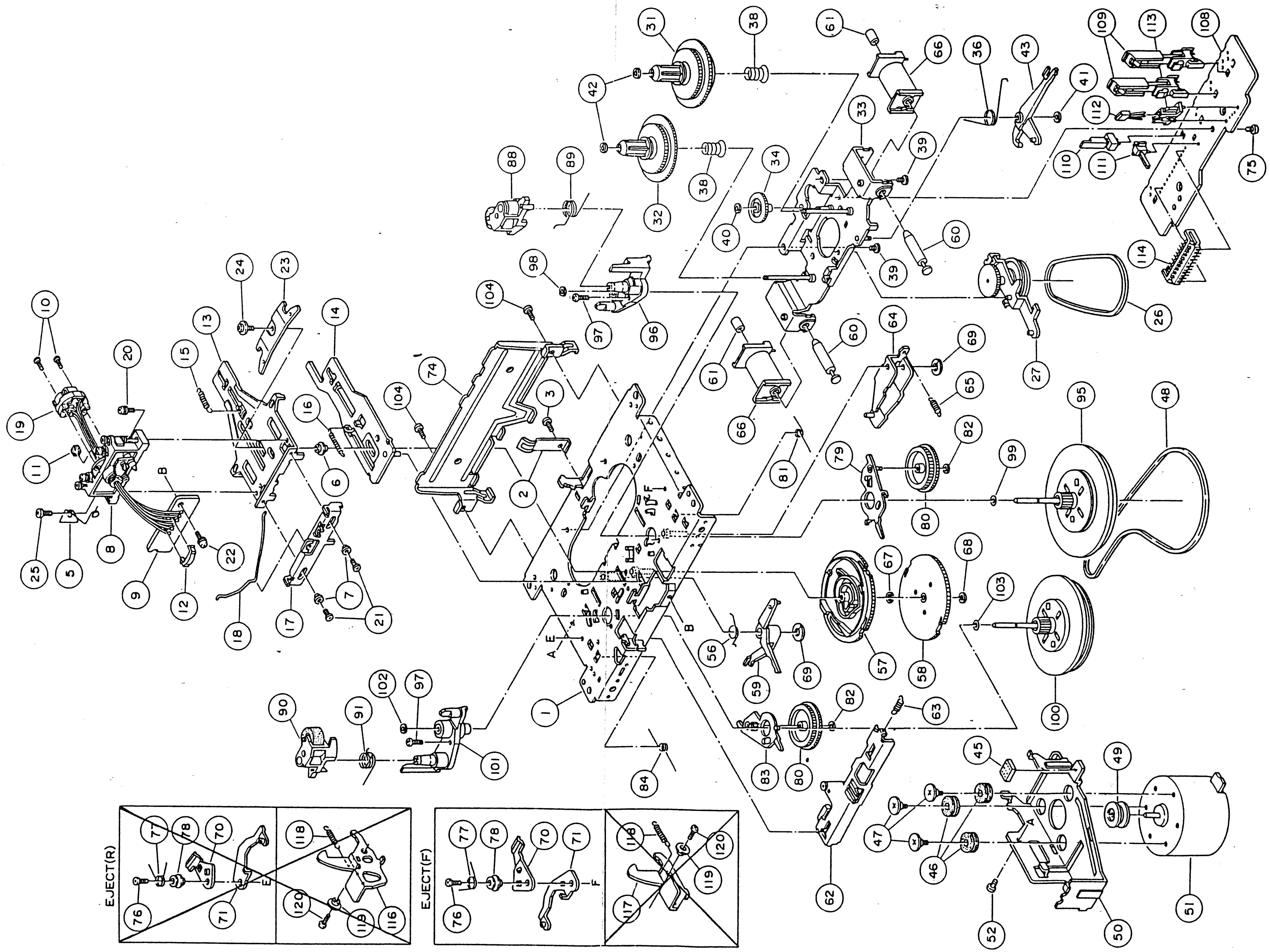
1. PLAY BACK DECK ASSY (14929-101-640)


A
B
1
2
3
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
31
32
33
34
36
38
39
40
41
42
43
45
46
47
48
49
50
51
52
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
74
75
76
77
78
79
80
81
82
83
84
88
89
90
91
95
96
97
98
99
100
101
102
103
104
108
109
110
111
112
113
114
116
117
118
119
120
E
F
EJECT(R)
EJECT(F)

MOTOR PULLEY HEIGHT

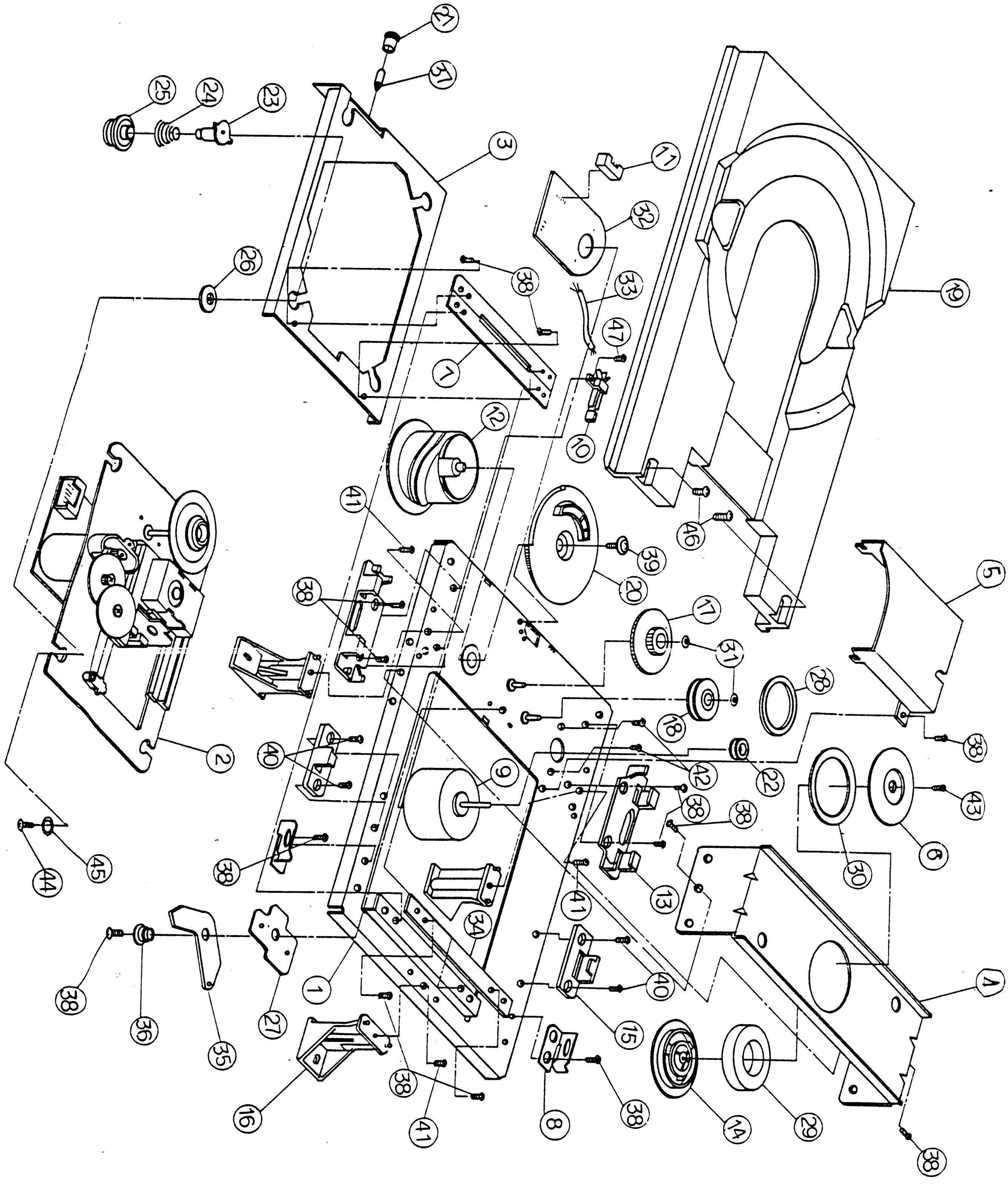
PULLEY No.	HEIGHT	
1880 09 32	A	9.3 ±0.1
	B	3.3
	A	
	B	
	A	
	B	

2. R/P DECK ASSY (14929-101-650)


1
2
3
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
31
32
33
34
36
38
39
40
41
42
43
45
46
47
48
49
50
51
52
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
74
75
76
77
78
79
80
81
82
83
84
88
89
90
91
95
96
97
98
99
100
101
102
103
104
108
109
110
111
112
113
114
116
117
118
119
120
A
B
E
F
EJECT(R)
EJECT(F)

■ CD MECHANISM EXPLODED VIEW

ASSY CODE NO : 14929-428-010


21
37
25
24
23
3
11
32
26
38
33
47
19
7
12
10
41
46
39
20
38
5
17
31
28
18
38
2
40
42
22
9
38
38
43
6
30
44
45
38
41
13
34
4
40
27
1
38
36
35
15
8
38
14
29
16
38
41
38

PARTS LIST

1. ELECTRICAL PARTS

1. MAIN PCB ASS'Y (1900-011-700)

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
RR1, 13	11048-477-151	R-METAL OXIDE; RS1T 150-J MINI TYPE	2		
LR2	11048-477-221	R-METAL OXIDE; RS1T 220-J MINI TYPE	1		
AR7L, 7R	11048-477-479	R-METAL OXIDE; RS1T 4.7-J MINI TYPE	2		
LR1	11048-577-151	R-METAL OXIDE; RS2T 150-J MINI TYPE	1		
AR9, AR12	11058-223-101	R-FUSIBLE; CRF 1/4W 100-J	2		
RR3, RR4	11058-377-011	R-FUSIBLE; RF 1/2T 1-J	2		
RR14	11058-477-109	R-FUSIBLE; RF 1T 1-J	1		
DSVR1L, 1R	11249-112-030	SEMI-VR; RH0615C 100 223	2		
KSVR2L, 2R	11249-112-040	SEMI-VR; RH0615C 100 473	2		
JSVR1L, 1R	11249-112-090	SEMI-VR; RH0615C 100 471	2		
CSVR1 ~ 4	11249-112-140	SEMI-VR; RH0615C 100 472	4		
LSVR1L, 1R	11249-112-210	SEMI-VR; RH0615C 100 224	2		
DG4L, 4R	11628-376-688	C-TANTALUM; 35V 0.68 μF-K	2		
DIC1	12109-323-990	IC-DOLBY; KA2271	1		
UIC1	12109-401-200	IC-U COM; LC66508-4517	1		
BIC1	12109-401-270	IC-FUNCTION; LC7821	1	★	
RIC1, 2	12109-401-690	IC-REGULATOR; MC7812C	2		
DIC2	12119-102-050	IC-EQ; BA3312N	1		
KIC1	12119-102-330	IC-TR ARRY; BA6251	1		
JIC50	12119-201-610	IC-AMPS; LA2010	1		
JIC1	12119-201-840	IC-PLAY; LA3246	1		
AIC1	12119-205-040	IC-POWER; STK4181-V	1		
PIC1	12119-401-170	IC-OP AMP; MC4558C	1		
RIC3, 4	12119-601-170	IC-VOLT REGULATOR; MC78M05	2		
RD1	12169-209-160	SI-BRIDGE DIODE; KBL 403 4A 200V	1		
RD4	12169-219-210	DIODE-RECT; 2KBP02	1		
UD26, 29	12169-404-110	DIODE-ZN; RD5.6FB/UZP-5.6B	3		
	12309-104-430	LED-LAMP; SLV-31 VC3	1		
AL1L, 1R	12429-060-031	COIL-CHOKE, SPK; 2R2UH-K F7R9 RD 1/4P 1	2		
	12429-070-130	COIL-CHOKE; 470UH R-TYPE	1		
KL1L, 1R	12619-053-911	COIL-CAN; AE 4.7MH 252KHz BLK			
KL1L, 1R	12619-057-417	COIL-CAN; AE 6.8MH 252KHz BLK			
LL2	12619-577-771	BIAS OSC; PCHNS-5371EQJ	1		
KBPF1L, 1R DBPF1L, 1R	12619-636-471	COIL CAN; AM2.2M HF NON	4		

LOCATION NO.	CODE NO.	DESCRIPTION & SPECIFICATION	Q'TY	NEW	REMARK
HEAD PHONE	13339-105-007	JACK-HEAD PHONE HYT 60-065(M)	1		
PHONO, AUX SURROUND	13339-417-030	JACK-RCA; 2P (S-434)	3		
DBPF2L, 2R	14529-414-050	FILTER-LOW PASS: 10MM 19K/105KHz	2		
UX1	14534-504-040	CERAMIC-RESONATOR: CSA4.00MG	1		
AR9	11058-223-101	R-FUSIBLE: CRF 1/4W 100-J	1		
DC4L, 4R	11628-376-688	C-TANTALUM: 35V 0.68UF-K	2		
CQ3, 5	12149-101-520	TRANSISTOR: KSA 733-Y, TAPE	2		
UQ2, 5, 6	12149-101-560	TRANSISTOR: KSA 708-Y, TAPE	3		
KQ2L, 2R	12149-301-820	TRANSISTOR: KSC 1222-L, TAPE	2		
AQ1L, 1R	12149-301-900	TRANSISTOR: KSC 945-Y, TAPE	9		
AQ1R, RQ1, 2					
KQ1L, 1R					
CQ2, 7					
LQ1	12149-301-910	TRANSISTOR: KSC 2331-Y, TAPE	1		
KQ14L, 14R	12149-301-930	TRANSISTOR: KSC 1008-Y, TAPE	5		
KQ15L, 15R					
UQ16					
KQ6, UQ10 ~ 15	12159-301-330	TR-DIGITAL: KSR2003, TAPE	7		
KQ3L, 3R	12159-301-780	TR-DIGITAL: KSR1003	17		
KQ7, 8					
DQ3L, 3R					
DQ1, 2 LQ3, 5					
CQ4, UQ3, 4					
7, 8 UQ16, 18					
RD2, 8, 10	12169-201-080	DIODE-RECTIFIER: IN4001, TAPE	4		
UD2					
KD1 ~ 4, DD1	12169-301-290	DIODE-SW: 1SS53/1N4148, CT: 6PF	23		
~ 4, CD1, 2					
UD1, 19 ~ 30					
LL1	12429-070-130	COIL-CHOKE: 470UH R-TYPE	1		
	13014-581-400	PCB-MAIN: 330 x 247 x 1.6T 94 IV-O	1	★	
P/T	12869-220-010	TRANS-POWER : 74 x 48 110/220V	1	★	KS
	12869-220-020	TRANS-POWER : EI 74 x 48 220V	1	★	VDE
	12869-220-030	TRANS-POWER : SCM 6900 240V	1	★	BS
	12869-220-040	TRANS-POWER : SCM 6900 120V	1	★	CSA
	12869-220-050	TRANS-POWER : 74 x 48 SCM 6900 110V	1	★	HONG KONG

2. TUNER ASS'Y (19100-011-430)

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
IUR1, 3	11249-002-010	VR-SEMI, FIXED: VZ066L, 50KB, HDK	2		
HC7	11609-365-473	GOLD CAPACITOR : EEC-S5R5H473 (5.5V0.047)	1		
FCT1, 3	11829-512-030	C-TRIMMER: TZ203R 20PF	2		2 BAND
FCT1, 2, 3, 4	11829-512-030	C-TRIMMER : TZ03R 20PF	4		3 BAND
LCD	12059-521-020	PILOT LAMP: 6.3V 60MA 4P 100M/M	1		
HIC1	12109-401-280	IC PLL: LC7230-8302	1		
IIC1	12119-102-720	IC AM, FM IF: LA1851N	1	★	
FQ7, 8	12139-601-200	TRANSISTLOR SILICON: 2SK 583	2		
	12169-201-080	DIODE-RECTIFIER: 1N 4001, TAPE	3		
FD1	12169-501-005	DIODE: KV 1236	1		
HLCD1	12339-101-080	LCD DTS: 8138 MJP	1		
IIFT1	12619-020-067	COIL 7 CAN: AB FM BLU	1		
IIFT2	12619-030-005	COIL-CAN: AC 450KHz YEL	1		
	12619-047-202	COIL-CAN: AD 510UH 220KHz BRN	1		
FIFT3	12619-047-203	COIL-CAN: AD 110UH 796KHz RED	1		
FIFT1	12169-411-000	MW ANT COIL: 207BLRZ-K5026N-KR	1		
FIFT2	12619-566-913	TRANS-TEN, CAN: AF 2.4MH FLW RED	1		
PCB TUNER	13014-581-420	PWB TUNER: 330 x 247 x 1.6T 94 1V-O	0.5		
CNTM 1	13039-408-309	MULTI-WIRE: 2468 # 26-8 300MM	1		
IF-CABLE	13059-636-960	IF-CABLE: 170MM, COAXIAL RCA	1	★	FTZ only
IF-CABLE	13099-500-427	IF-CABLE: 5264-02 5395-02 1365-30 270M	1		
F1	14519-809-040	FM FRONT END PACK: F3615 (300)	1		
F1	14519-816-020	FM FRONTEND: SE-1020 (300OHM)	1	★	CSA only
F1	14519-809-020	FM FRONTEND PACK: VT4011 (FTZ)	1		W/GERMANY
ICF1, 2, 3	14529-301-750	FILTER CERAMIC: SFE 10.7MS3G-A	3		
ICF1, 2, 3	14529-301-770	CERAMIC FILTER: SFE 10.7MJ RED	3		W/GERMANY
ICF1, 2, 3	14529-301-760	CERAMIC FILTER: SFE 10.7MA8H	3		CSA, KS
ICF5	14529-304-610	FILTER CERAMIC: AHCM2-450BL	2		
	14529-403-010	FILTER-L, C: PFW-B4	1		
ILPF1L, 1R	14529-505-210	FILTER-LOW PASS: B3AN 0701-32	2		
HX1	14539-003-010	CRYSTAL-UNIT: HC18-U4.5MHz	1		
ICF4	14539-504-100	CERAMIC RESONATOR: CSB456F 15	1		
FQ5, 6	12149-101-520	TRANSISTOR: KSA733-Y, TAPE	2		
IQ1	12149-301-860	TRANSISTOR: KSC838-O, TAPE	1		
FQ2 ~ 4	12149-301-900	TRANSISTOR: KSC 945-Y, TAPE	3		
HQ1	12159-301-330	TR-DIGITAL: KSR2003, TAPE	1		
HD2 ~ 6 HD11 ~ 14 HD19 ~ 22 HD26, 28	12169-301-290	DIODE-SW: 1SS53/1N4148, CT: 6PF	15		
HD1	12169-403-600	DIODE-ZENOR: UZP-8.2B	1		

3. FRONT ASS'Y (19200-005-700)

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
QVR7	11219-153-030	VOLUME MOTOR; RK16Y12MA 1L1 14B	1		
QVR1 ~ 5	11239-115-030	VOLUME EQ; RS20H123J 304 53B	5		
QVR6	11239-115-040	VOLUME BALANCE; RS20H 114J 304 53W	1		
QC16	11608-103-471	C-ELECTROLYTIC; TAP 16V 470M 10 x 12.5	1		
HIC6	12109-401-900	IC-HCT; LC74HC375/TC74HC375	1	★	
QIC1	12119-202-880	IC-LINER; KA22234 (5G/EQ)	1		
QIC2	12119-401-170	IC-OP AMP; MC4558C	1		
HEYE	12199-101-050	REMOCON EYE; GP1U501X1 701R	1		
HEYE	12199-101-070	REMOCON EYE; SBX1610-02	1		
HLED1~7, ULED 6~11	12309-104-420	LED-LAMP; SLV-31 DC3	13		
HQ4, 5	12149-101-560	TRANSISTOR; KSA708-Y, TAPE	2		
HQ6, 7	12149-301-930	TRANSISTOR; KSC1008-Y, TAPE	2		
HQ4	12159-301-330	TR-DIGITAL; KSR2003, TAPE	1		
HQ2, 3	12159-301-780	TR DIGITAL; KSR 1003	2		
QPCB1	13014-581-410	PWB FRONT; 330 x 247 x 1.6T 94 1V-O	1		
FSW, USW	13559-901-100	TACT SWITCH; SKHVBE029A	43		
FM T-AMT	14509-104-010	ANTENNA-T, FM; 150 +— 50% OHM L=3525M	1		
AM LOOP ANT	14509-240-030	ANT LOOP; 15.0UH EUTE	1		

4. CD ASS'Y (19010-000-511)

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
PCB	13013-517-310	PCB; 330 x 197 94V-O SCM6900CD	1		
LAMP	12059-521-026	PILOT LAMP; 6.3V 60MA 4P 260M/M	1		
XIC1	12109-401-310	IC-D/A CONVERTER; KDA0316LN	1		
WIC1	12109-323-730	IC-RF AMP; CXA 1081M	1		
WIC2	12109-323-740	IC-SS PROCESSOR; CXA 1082AQ	1		
WIC3	12109-323-750	IC-DS PROCESSOR; CSD 1130Q	1		
WIC4	12109-323-800	IC-SRAM; CXK5816-M15L/HM6116-120	1		
UIC101	12109-401-230	IC-MICOM; LC66508-4358CD	1		
UIC102	12109-401-260	IC-LCD DRIVER; LC7582	1		
AIC102	12119-401-630	IC-DUAL OP AMP; MC4558S	1		
ZIC1 ~ 3	12119-401-760	IC-OP AMP; NJM2068SD/UPC4570HA	3		
AIC101, 103	12119-601-770	IC-REGULATOR; MC7805	2		
WX1	14539-501-090	X-TAL; 8.4672MHz	1		
UX101	14534-504-040	CERAMIC-RESONATOR; CSA4.00MG	1		
TACT S/W	13559-901-090	TACT SWITCH; SKHVBG007A	25		
UD102 ~ 104	12169-301-290	DIODE-SW; 1SS53/1N4148, CT: 6PF	6		
ZD1, WD1					
AD101 ~ 104	12169-201-080	DIODE-RECTIFIER; 1N4001, TAPE	5		
UD101					
WL1	12429-508-100	COIL-CHOKE; 10UH	1		

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
WQ12	12159-301-800	TR DIGITAL; KSR1007	1		
UQ104	12149-201-480	TRANSISTOR; KSB 772-Y	1		
ZQ4	12159-301-780	TR DIGITAL; KSR1003	1		
WQ4	12149-301-910	TRANSISTOR; KSC2331-Y, TAPE	1		
UQ101, 103 ZQ2L, 2R, 3L, 3R	12149-301-900	TRANSISTOR; KSC 945-Y, TAPE	6		
WQ2, 6, 8, 10	12149-401-150	TRANSISTOR; KSD-471Y TAPE	4		
WQ1, 3, 5, 7, 9, 11	12149-202-050	TRANSISTOR; KSB564A-Y	6		
WQ5, AQ101	12149-101-590	TRANSISTOR; KSA931-Y, TAPE	2		
ZQ1, 5	12149-101-520	TRANSISTOR; KSA733-Y, TAPE	2		
LCD	12339-101-040	LCD; 8087MJP CD	1		
WSR1 ~ 4	11249-002-030	VR-SEMI, FIXED; VZ066L, 22KB HDK	4		
WSR5	11249-002-050	VR-SEMI, FIXED; VZ066L, 22KB HDK	1		
AFR102, 103	11058-377-011	R-FUSIBLE; RF1/2T 1-J	2		
AFR101	11048-477-270	R-METAL OXIDE; RS1T 27-J MINI TYPE	1		
AFR104	11048-477-151	R-METAL OXIDE; RS1T 150-J MINI TYPE	1		
P/T	12869-220-011	TRANS-REMOCON; EI 35 x 14 SCM6900 110/220V	1	★	KS
	12869-220-021	TRANS-REMOCON; EI 35 x 14 SCM6900 220V	1	★	VDE
	12869-220-031	TRANS-REMOCON; SCM6900 240V	1	★	BS
	12869-220-041	TRANS-REMOCON; SCM6900 120V	1	★	CSA
	12869-220-051	TRANS REMOCON; 35 x 14 SCM6900 110V	1	★	HONGKONG
P/C	13059-808-246	POWER CORD ASSY; KKP-4 19C/B-161 W/S 220M/M	1		
	13053-505-011	POWER CORD ASSY; BS6500GTBS 2.5M W/S 220M/M	1		
	13059-808-301	POWER CORD ASSY; KKP-8W SPT-2 7FT 270M/M W/S	1		
	13053-806-313	POWER CORD ASSY; KKP-10 SPT-1 # 18 7FT 220M/M W/S	1		
FUSE	14709-033-200	FUSE; 61S125V 1A UL/CSA	1		
	14709-033-250	FUSE; 51S SLO 250V 2A UL/CSA	1		
	14709-201-040	FUSE; 250V 32MA UL/CSA	1		
	14709-342-050	FUSE; 51T 250V 63MA UL/CSA	1		

2. MECHANICAL PARTS

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
1	17154-100-640	SCREW-TAP RH SPEC; 2S-3 x 8 FE FZB	10		
2	16100-500-210	CABINET-TOP; VINYL STEEL 0.75T	1	★	
3	16000-530-110	PANEL-FRONT; HIPS BLK	1	★	
4	17654-561-510	WINDOW-DOOR, A; ACRYL 2.0T CLR	1	★	
5	16602-502-610	COVER-DOOR, A; HIPS BLK	1	★	
6	17642-528-410	DOOR-CASSETTE; ABS BLK	2	★	
7	16674-518-510	SPRING-TAPE; SUS T0.35T	4		
8	17654-561-410	WINDOW-TUNER; ACRYL 2.0T CLR	1	★	
9	17654-561-710	WINDOW-COUNTER; ACRYL 2.0T CLR	1	★	
10	16603-510-010	HOLDER-LED(L); ABS WHT + TI02	1	★	
11	17654-561-010	WINDOW-FUNCTION; PC0.5T VLR	1	★	
12	17654-561-110	WINDOW-COVER; PVC1.0T CLR	1	★	
13	16003-504-010	COVER-DUMMY(DO); HIPS 94HB BLK	1	★	
14	17654-561-810	WINDOW-CD; ACRYL 2.0T CLR	1	★	
15	17654-561-610	WINDOW-DOOR, B; ACRYL 2.0T CLR	1	★	
16	16602-502-710	COVER-DOOR, B; HIPS BLK	1	★	
17	17623-575-510	DECO-FRONT; ABS 94HB BLK	1	★	
18	16174-503-510	CUSHION-FOOT; RUBBER SPONGE BLK	2	★	
19	17824-526-210	DECO-FOOT; ALS0.4T SCM7550	2	★	
20	17458-130-081	SCREW-TAP TITE BH; B-3 x 8 FE FZY	1		
21	17623-575-410	KNOB-VOLUME; ABS 94HB BLK	1	★	
22	16674-570-210	SPRING-EJECT; SUS 0.8T	2	★	
23	17644-517-210	LENS-VOLUME; PMMA	1	★	
24	17622-502-810	KNOB-PRESET; ABS 94HB BLK	1	★	
25	17623-575-210	KNOB-DECK, A; ABS 94HB BLK	1	★	
26	17623-575-310	KNOB-TIMER; ABS 94HB BLK	1	★	
27	17622-502-310	KNOB-POWER; ABS 94HB BLK	1	★	
28	17458-130-121	SCREW-TAP TITE, BH; B-3 x 12 FE FZY	2		
29	16624-529-820	BRKT-PANEL, A; SBHG 1.0T	2	★	
30	17622-502-510	KNOB-FUNCTION; ABS 94HB BLK	1	★	
31	16624-543-210	BRKT-PCB; SBHG 1.0T	1		
32	17458-230-101	SCREW-TAP TITE BH; 2S-3 x 10 FE FZY	2		
33	17622-502-610	KNOB-DECK, B; ABS 94HB BLK	1	★	
34	18004-512-910	LENS-DOLBY; PMMA	5	★	
35	17622-502-710	KNOB-TRACK; ABS 94HB BLK	1	★	
36	16132-502-910	SHIELD-LCD; TE-SBC 0.5T	1	★	
37	17458-130-081	SCREW-TAP TITE, BH; B-3 x 8 FE FZY	2		
38	16602-502-810	HOLDER-LCD(CD); ABS WHT + TI02	1	★	
39	16121-503-110	CHASSIS-MAIN; SECC0.8T	1	★	
40	16174-502-120	FOOT; RUBBER	2	★	
41	16174-503-810	FOOT-CONTACT; EVA RUBBER	2	★	

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
42	17458-230-101	SCREW-TAP TITE BH; 2S-3 x 10 FE FZY	2		
43	14929-428-020	DECK-CD; MCD-350	1		
44	17642-528-610	HOLDER-TRY; ABS BLK	1	★	
45	17154-100-630	SCREW-TAP RH SPEC; 2S-3 x 8 FE FZY	4		
46	12869-220-010	TRANS-POWER; EI 74 x 45 110/220V	1		
47	13059-808-246	POWER CORD ASS'Y; KKP-4 19C/B-161 W/S 220M/M	1		
48	16133-506-510	COVER-CD; SECC 1.0T	1	★	
49	17458-230-101	SCREW-TAP TITE BH; 2S-3 x 10 FE FZY	8		
50	14929-101-650	DECK(RP); TN-1800-191	1		
51	13304-503-620	TERMINAL-ANT; ABS 4 TERMINAL	1		
52	17624-622-010	KNOB-PUSH; ABS 94HB BLK	3	★	
53	14929-101-640	DECK(PB); TN-1800-192P	1		
54	17458-230-101	SCREW-TAP TITE BH; 2S-3 x 10 FE FZY	16		
56	16122-536-010	FRAME-L; SCEE 0.8T	1	★	
57	15009-510-810	HEAT-SINK ASS'Y; ALS	1		
58	17448-130-201	SCREW-TAP TITE BH; B-3 x 20 FE FZY	2		
59	12119-205-040	IC-POWER; STK4181-V	1		
60	13303-500-610	TERMINAL-BOARD PUSH; 4P PUSH TACK	1		
61	17154-100-630	SCREW-TAP RH SPEC; 2S-3 x 8 FE FZY	4		
62	13339-417-030	JACK-RCA; 2P (S-434)	3	★	
63	16122-536-110	FRAME-R; SECC 0.8T	1	★	
64	16033-505-410	COVER-P/T; HIPS 94HB BLK	1	★	
65	17154-100-630	SCREW-TAP RH SPEC; 2S-3 x 8 FE FZY	13		
66	17831-500-510	COVER-REAR; H/BOARD 3.0T	1	★	
68	16133-506-210	SHIELD-DECK; EGI 0.3T	1	★	
69	12339-101-040	LCD; 8087MJP CD	1		
70	12339-101-080	LCD DTS; 8136 MJP	1		
71	15123-504-010	DAMPER-GEAR ASSY; ACETAL VIP690	1		

3. CD DECK ASS'Y

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
	14929-428-010	DECK-CD: MCD350	1		
1	10000-603-500	BASE MACHANISM	1		
2	10000-603-501	MCD 150 ASSY	1		
3	10000-603-502	BASE HOLDER	1		
4	10000-603-503	SUPPORTER CLAMP	1		
5	10000-603-504	GEAR COVER	1		
6	10000-603-505	CLAMP MAGNET	1		
7	10000-603-506	HINGE SPRING	1		
8	10000-603-507	SPRING TRAY GUIDE-R	1		
	10000-603-508	SPRING TRAY GUIDE-L	1		
9	10000-603-509	MOTOR LOADING; RF-510T	1		
10	10000-603-510	LEAF SWITCH; MSW-1731 CVC	1		

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
11	10000-603-511	CONNECTOR	1		
12	10000-603-512	CAM PU	2		
13	10000-603-513	GUIDE TRAY	1		
14	10000-603-514	CLAMP DISC	2		
15	10000-603-515	HOLDER TRAY	3		
16	10000-603-516	LEG MACHANISM	1		
17	10000-603-517	GEAR IDLE	1		
18	10000-603-518	PULLEY GEAR	1		
19	10000-603-519	TRAY DISC	1		
20	10000-603-520	GEAR TRAVERSE	1		
21	10000-603-521	BUSHING	1		
22	10000-603-522	PULLEY MOTOR	4		
23	10000-603-523	SUPPORTER "A" RUBBER	2		
24	10000-603-524	SPRING INSULATOR -F	2		
	10000-603-525	SPRING INSULATOR -R	4		
25	10000-603-526	BASE PU CUSHIN	4		
26	10000-603-527	SUPPORTER "B" RUBBER	1		
27	10000-603-528	BASE STOPPER	1		
28	10000-603-529	BELT	1		
29	10000-603-530	MAGNET	1		
30	10000-603-531	FELT MAGNET	2		
31	10000-603-532	POLY WASHER	1		
32	10000-603-533	MOTOR PCB "B"	1		
33	10000-603-534	WIRE; RED	1		
33	10000-603-535	WIRE; BRN	1		
33	10000-603-536	WIRE; BLK	1		
34	10000-603-537	HINGE SPG PLATE	1		
35	10000-603-538	STOPPER	1		
36	10000-603-539	BUSHING STOPPER	1		
37	10000-603-540	SHAFT BASE HOLDER	1		
38	10000-603-541	SCREW T/T BH2.6 x 6 ZN	14		
39	10000-603-542	SCREW TAPPING W/WASHER BH2.6 x 8 ZN	1		
40	10000-603-543	SCREW T/T BH 2 x 4 ZN	4		
41	10000-603-544	SCREW TAPPING BH 3 x 10 BLK	3		
42	10000-603-545	SCREW MACHINE BH 2.6 x 3 ZN	2		
43	10000-603-546	SCREW TAPPING CPP 2605-FBBO	1		
44	10000-603-547	SCREW TAPPING PH 2 x 8 ZN	4		
45	10000-603-548	WASHER SPCC 1t x ø2.3 x ø8 ZN	4		
46	10000-603-549	SCREW TAPPING BH 2.6 x BLK	2		
47	10000-603-550	SCREW T&T BH 2 x 4 ZN	1		
48	10000-603-551	FELT, MECHANISM	1		

NOTE : Parts which are not described in the CD MECHANISM list are not serviceable. If you need any other parts except those described, apply CD MECHANISM ASSY (Only CD MECHA. ASSY is available).

4. CASSETTE DECK ASS'Y (P/B DECK : 14929-101-640, R/P DECK : 14929-101-650)

LOCATION NO.	CODE NO.	DESCRIPTION AND SPECIFICATION	Q'TY	NEW	REMARK
2	10000-600-002	PACK SPRING: 1880 01 02	1		
9	10000-600-009	RELAY BOARD	1		
19	10000-521-013	RP HEAD: HD425558	1		DECK B
	10000-521-014	PB HEAD: HD422515			DECK A
26	10000-600-026	RF BELT: 18880-07-08	1		
27	10000-600-027	RF CLUTCH ASS'Y: 1880-07-302	1		
31	10000-600-031	T REEL ASS'Y (F): 1880-05-301	1		
32	10000-600-032	T REEL ASS'Y (R): 1880-05-302	1		
34	10000-600-034	FF GEAR: 1880 05 08	1		
48	10000-600-048	MAIN BELT: 1880-09-10	1		
49	10000-600-049	MOTOR PULLEY: 1880 09 32	1		
51	10000-503-002	MOTOR	1		
57	10000-600-057	M GEAR: 1880-21-15	1		
59	10000-600-059	M TRIGGER ARM: 1880-21-03	1		
66	10000-600-066	SOLENOID: 1880-21-13	2		
74	10000-600-074	SW PROTECTOR: 1880 53 02	1		
80	10000-600-080	T GEAR	2		
88	10000-600-088	PINCH ROLLER ARM (F) ASS'Y: 1880-04-301	1		
90	10000-600-090	PINCH ROLLER ARM (R) ASS'Y: 1880-04-302	1		
95	10000-600-095	FLYWHEEL (F) ASS'Y: 1880-09-301	1		
100	10000-600-100	FLYWHEEL (R) ASS'Y: 1880-09-302	1		
109	10000-600-109	LEAF SW: MTS-10250MVJO	2		

NOTE : Parts which are not described in the DECK list are not serviceable. If you need any other parts except those described, apply DECK ASSY (Only DECK ASSY is available).